

showtime

The bi-annual publication from The **VICTAM** Corporation

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THE IMPACT OF COVID-19 ON THE EXHIBITION INDUSTRY.



Sebas van den Ende

Having reported an all-time low for exhibition industry performance as a result of the COVID-19 outbreak, the Conference for Exhibition Industry Research (CEIR) has released the results of a new poll tracking the ongoing impact of the pandemic on the B2B exhibition industry.

According to its findings, some 73% of exhibition organizers have canceled at least one exhibition as of June 2020. The two largest reasons to being forced to cancel are the uncertainty on whether large gatherings or group meetings would be allowed due to country/ local lock down orders and the corporate 'no

travel' policies impacting attendee and exhibitor participation. Source: www.ceir.org.

Due to the above-mentioned reasons, the Victam management team has also been forced to make the tough decision to postpone their events. General Manager of the Victam Corporation, Sebas van den Ende, explains the impact on the organization and industry.

Victam Corporation

Please visit our website for more information: victam.com

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Showtime: What has been the biggest impact on the Victam Corporation?

"It is clear from the numbers above that

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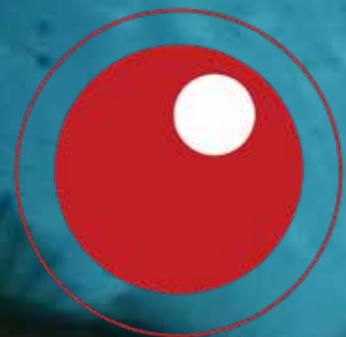
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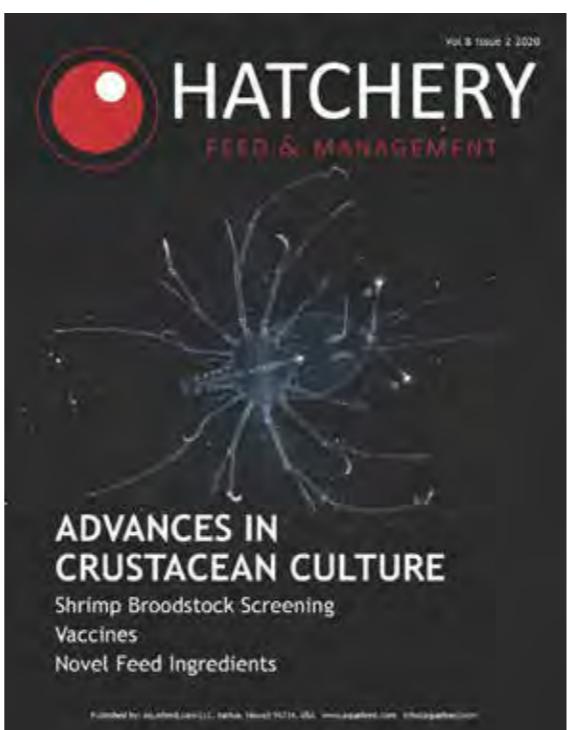
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Continued from front page:

the business we are in is suffering from the ongoing Covid-19 pandemic. The pandemic has a great effect on businesses within the events and exhibition industry, including the Victam Corporation," says Van den Ende. "Due to the postponement and cancellations of events, we see our income reduced to zero and are forced to reorganize the company to avoid extra costs. This unfortunately means a loss of jobs within our company," he continues.

Showtime: do you think that exhibitions and other events will still exist after the pandemic eases?

"The question is not whether we will survive this situation but when can we start organizing events again? In my opinion, exhibitions will continue to be an important part in business. We are social creatures, so meeting your business partners or potential customers in person is very important. Furthermore, looking at products and seeing them in action cannot be replaced by a You Tube video or a Zoom meeting. However, how visitors and exhibitors will respond once the exhibitions can be organized again, no one knows."

Showtime: do you think that future exhibitions can be organized in the same way as before the pandemic?

"I can imagine that companies will chose to go only to the events which are most important to them. Smaller shows will therefore face difficulties to survive. I think the Victam exhibitions are well positioned within the animal feed and grain processing industries and are important for companies within these industries," says Van den Ende. "Before the pandemic started, we chose for the strategy of partnership with other important organizers like VNU Exhibitions in Asia and Europe and Parantez International Fairs in Turkey. These partnerships are very important to start up again once we get the green light to organize shows again. And when we do, our organization will be ready."

Showtime: what will Victam do in the meantime?

Sebas: "we are using this time to create and develop a unique online platform. This platform will not be a digital event but a digital starting point for companies within the animal feed and grain processing industries. You can think of things like news, job openings, interviews, company profiles, matchmaking tool, webinars, and etcetera." He continues: "during the Covid time this platform will be a great possibility to share information and to connect with each other. After Covid, it will be a great addition to our exhibitions and conferences being a year-round source of information."

Updated event schedule:

IDMA and VICTAM EMEA | May 27 – 29, 2021 |
Istanbul, Turkey | www.idmavictam.com

VICTAM and Animal Health and Nutrition Asia |
January 18 – 20, 2022 | Bangkok, Thailand |
www.victamasia.com

VICTAM and GRAPAS International |
May 31 – June 2, 2022 | Utrecht, the Netherlands |
www.victaminternational.com



Aquafeed companies step up for the environment

Suzi Dominy, Publisher, Aquafeed.com

Last summer thousands of fires ravaged the Amazon rainforest in Brazil - the most intense blazes for almost a decade. Forest fires are common in the Amazon during the dry season, often caused by natural phenomena, but in 2019 most are believed to have been caused by deforestation for grazing, or crop production – particularly soy.

Salmon Group, whose 44 member companies buy around 90,000 metric tonnes (mt) of fish feed, or 12% that is sold to salmon and trout farmers in Norway, was one of the first to react, removing Brazilian soy from their fish feed in September. But soy is currently an indispensable ingredient in aquafeeds. It is often used as a substitute for fishmeal, which is four times the price and seen as a finite and, by some, an unsustainable protein source. The industry needs soy from Brazil. According to a recent USDA report, Brazil is forecast to overtake the US as the leading soybean producer in the world during the 2019/20 season, at 123.5 million metric tons (mmt) up from 122 mmt, recorded in the 2017/18 season.

The major feed companies were quick to respond: Skretting, Cargill Aqua Nutrition, Biomar and Mowi established a roundtable group to work to improve the salmon value chain, and take action outside of their traditional scope. In partnership with the certification organization ProTerra, and the Brazilian soy protein concentrate (SPC) producers Caramaru, Imcopia and CJ Selecta, they developed means to include traceability information and improve transparency within the value chain. Each shipment delivered to European feed producers will now be tracked to determine place of origin, with detailed information about the farm's deforestation and other illegal activities available.

Salmon farmers in Northern Europe have for years only purchased certified deforestation-free soy from Brazil. But the dialogue group said it would welcome initiatives that would move beyond a supply chain approach to drive a forest-positive

future. This is exactly what Nutreco has done: it will fund an initiative designed to help end soy-associated deforestation in one of Brazil's most important areas of biodiversity. The Funding for Soy Farmers in the Cerrado initiative aims to conserve native vegetation and biodiversity in the Cerrado region, halting deforestation by providing financial incentives to farmers to produce soy only on existing agricultural land. The funding will support the Cerrado biome to become a verified zero deforestation area for soy. With its two divisions, Trouw Nutrition for animal nutrition and Skretting for aquafeed, Nutreco has pledged to commit \$1 million to the fund over the next five years.

Beyond soy

In a bid for more sustainable solutions, scientists and private companies are working hard to find alternative proteins and oils and other feed ingredients. A 4-year EU Horizon 2020 project, including 21 partners from ten European countries, are working to optimize and validate the production of three alternative proteins and demonstrate their commercial suitability in addition to, or substitute for, traditional protein sources. Microalgae will be grown on carbon dioxide emission from geothermal power plants in an efficient, indoor, production process transforming waste into microalgal meal; black soldier flies and crickets will be grown on underutilized plant-food biomass, transforming waste into insect protein meal, and single cell proteins (SCPs) will be produced through microbial fermentation of carbohydrates derived from wood biomass and biomass residues. The NextGen-Proteins project will serve as a platform for industrial partners/entrepreneurs to take their innovations to the next level.

Editorial

A new European project, Large-scale production of proteins for food and feed applications from alternative, sustainable sources (FARMÝNG), will develop, on an industrial and automated scale, the breeding and transformation of insects to produce feed ingredients. FARMÝNG will develop a large-scale, first-of-its-kind bio-based value chain producing sustainable, safe feed products from *Tenebrio molitor* protein in Northern France. The facility developed for FARMÝNG will exploit the physiological capabilities of mealworms physiology to efficiently convert vegetal byproducts in mealworm biomass and will transform those mealworms into sustainable proteins and lipids for fish feed and pet food end markets. In parallel, manure will be recovered for soil fertilization applications.

The project is coordinated by Ÿnsect, a French startup company specialized in insect-based products, in partnership with 20 key actors alongside the value chain such as ADM, Ajinomoto, Clextral, Skretting and Virbac Nutrition, among others. FARMÝNG project will transfer the technology from a demo plant to the industrial flagship plant able to produce almost 1,500 tons of proteins and 400 tons of oil per month.



The feed industry is of course a recycler. Among the more creative studies into the use of plentiful waste products is the production of SCP from sawdust. In the process developed in the Natural Resources Institute Finland (Luke) MonoCell project, sugars found in sawdust

are split so that a single-cell organism, in this case yeast, can use the sugar as food. Conditions were adjusted so that the process mainly produces proteins instead of ethanol. Another example is Edinburgh-based biotech startup, MiAlgae. The biotech business uses co-products from the whisky distillation process to produce microalgae high in omega-3 and other nutrients. A recent £1 million injection of funds will see its microalgae product move a step closer to commercialization.

Microalgae are regarded as one of the most promising alternatives to replace fishmeal and fish oil, they can be used as a source of protein, lipid, pigments, vitamins, minerals and other nutrients. *Pavlova* sp. 459 has been used as a high-quality liquid live-feed for cultivated bivalves but had never been evaluated as a low-trophic dry aquafeed ingredient. A group of Canadian researchers recently evaluated it for nutritional characteristics relevant for salmonid aquafeeds, and shown it to be a promising candidate.

Beyond the lab

There are clear signs that alternative proteins and oils have moved beyond the experimental and into the marketplace and are offering early adopters clear marketing advantages. Veramaris, a joint venture of DSM and Evonik, has developed a unique natural marine algal oil for farmed fish diets that can

increase the levels of both of the essential omega-3 fatty acids in fish, EPA and DHA, while at the same time reducing the Forage Fish Dependency Ratio (FDDR). Trout produced by Truite Service, fed with a pioneering Skretting diet that incorporates the algal oil developed by Veramaris, arrived on retail shelves in France early this year, progressing sustainable seafood availability in the market to a new level. This trout diet is the latest in a succession of collaborations between the two companies. In 2019, they made waves when salmon raised on a similar diet were first made available to French consumers by retailer Supermarché Match.

In addition to meeting consumer expectations for responsibly produced food, this proven new approach to aquaculture diets is also responsible for generating increased sales, with Supermarché Match recently reporting a 12% growth in its salmon category following the launch of salmon from Norwegian farmer Lingalaks, fed Skretting's aforementioned salmon diet, a clear indication that consumers are demanding fish that is nutritionally superior and sustainably raised.

German retailer Kaufland became the first retailer in Germany to introduce salmon fed on a diet containing the natural marine algal oil by Veramaris. The salmon became available under Kaufland's own brand K-Blue Bay from February 27.

Meanwhile, ingredient company Corbion and feed manufacturer BioMar have collaborated with Kvarøy Arctic, a third-generation, family-owned Atlantic salmon farm, to introduce their sustainably raised salmon brand, Kvarøy Arctic, to the U.S. and Canada. The feed was created by BioMar as part of their "In the Blue" salmon diet concept and includes AlgaPrime™ DHA. The salmon has double the omega-3 content of other farmed salmon and a fish-in-fish out (FIFO) ratio of only 0.48:1, one of the lowest in the aquaculture industry. This has been achieved in part through pioneering work with Corbion to use microalgae as a sustainable source of long-chain omega-3s. AlgaPrime™ DHA is a native, whole algae ingredient that contains approximately three times the level of DHA of fish oil. It is also a clean ingredient, sustainably produced through fermentation with non-GM cane sugar as a feedstock and a production system powered by renewable energy.

Professionals in the aquafeed industry worldwide have relied on Aquafeed.com for their business, scientific and technical news and information for more than two decades. Visit www.aquafeed.com for latest news and a wealth of resources, and to sign up for the free weekly newsletter and quarterly magazine.



IDMA and VICTAM: a strong platform for grain, feed and pulses industries

The Victam Corporation and Parantez International Fairs announced last year that they would organize the 9th edition of the IDMA exhibition together on March 18 – 20, 2021 under the name IDMA AND VICTAM EMEA. Due to the COVID-19 pandemic, the event had to be postponed to May 27 - 29, 2021.

As the possibility of organizing exhibitions remains uncertain due to the continuing pandemic, a final decision whether to go ahead with the event in May 2021 will be made in January next year. In case the situation has not improved by then, the event will have to be moved to March 2023. This is to keep the bi-annual schedule of organizing **IDMA and VICTAM EMEA** in the odd number years in place.

Despite the worldwide COVID-19 situation, the two companies will continue their partnership and aim to create a significant benefit with this cooperation by bringing together all the components of the grain, feed and pulses sectors on a stronger and more extensive platform under the roof of IDMA AND VICTAM

EMEA. Parantez and the Victam Corporation will provide both exhibitors and visitors with great convenience and significant advantages in marketing, sales, and operational activities. It will also contribute to the faster growth of companies in international markets.

"The most powerful and largest event"

The Victam Corporation, which organizes some of the biggest events in the animal feed processing sector in various locations of the world, will strengthen its presence in Europe, the Middle East, and Africa through this cooperation.

Mr. Sebas Van den Ende, General Manager of the Victam Corporation, points out that both parties signing the agreement are aiming to have the strongest and largest event in the region. Mr. Van den Ende continued his speech as follows: "This cooperation provides an entry into the region for Victam and a strategic path for IDMA to respond to growing competition."

This cooperation, which adopts a win-win strategy, may create a synergy in sales, marketing, and operations and may be a proactive answer for companies wishing to enter the region. The cooperation aims is to have a long-term cooperation for the benefit of both parties."

"Cooperation for a better future..."

Parantez International Fair, the organizer of IDMA Exhibition since 2005, which is notable for its international success, aims to develop a new synergy with the new partnership focusing on growth in the sector. Mrs. Zübeyde Kavraz, chair woman of the company, emphasizes that this cooperation will open up new horizons for both the industry and IDMA.

Pointing out to the significance of partnership for strengthening the sector, Mrs. Kavraz said the following: "We live in a period where food safety and sustainable production are at the forefront. Therefore, the development and strengthening of cereal, feed and pulses sectors of which Parantez and Victam are a part of, are extremely important in terms of ensuring food safety and sustainable production in the world. Because cereal and pulse-based foods and animal products continue to constitute the most basic food sources of human beings. More than 600 million tons of wheat and corn are milled annually, and the flour obtained from them is consumed as for noodles, bread, pasta, etc."

The volume of global grain processing technologies was \$ 4.2 billion in 2018. According to recent market researches, the sector will reach \$ 6 billion by 2025. Thanks to this cooperation, in Istanbul we will exhibit the technologies of the compound feed and grain markets, of which annual trade volumes are \$ 500 billion and \$165 billion respectively according to the International Feed Industry Federation (IFIF).

In addition, the world is going through a tough economic period. Companies are placing special emphasis on using the budgets they allocate for promotion and marketing activities on much more efficient platforms and for a good reason. Therefore, we have decided to bring our expertise and strength together in order to contribute to our sector in this regard. This cooperation will prevent our participants and visitors from being divided into smaller events organized at different dates and provide them with an opportunity to come together on a more efficient platform. This means a great deal of convenience and savings for companies in terms of operational activities and a much stronger and extensive marketing network.

Demand for flour and bakery products is expected to increase in the forthcoming period, especially in regions with higher population growth rates. At this point, the most important regions are; Sub-Saharan Africa, the Middle East and North Africa along with Southeast Asia. Because Turkey is one of the main centers of grain processing technologies industry and it is close to Middle Eastern and African countries where flour demand is expected to grow, so this provides Istanbul strategical advantage in terms of milling exhibition.

The IDMA and VICTAM EMEA exhibition has received the support of national milling associations of 40 countries. Additionally, the Turkish-Netherlands Friendship Association gives strong support in the formation of this cooperation.

Associations that participated in Press Launch:

- Edip AKTAŞ, Chairman of Turkish Netherlands Friendship Association (TÜHOD)
- Erhan ÖZMEN, Honorary President of Southeastern Flour Industrialists' Association (GUSAD)
- Mesut ÇAKMAK, Chairman of Southeastern Flour Industrialists' Association (GUSAD)
- Ata TORU, Deputy Chairman of Anatolian Flour Industrialists' Association (AUSD)
- Cem Oğuz KIRTIZ, Deputy Chairman of Anatolian Flour Industrialists' Association (AUSD)
- Bekir BAĞIŞ, Chairman of Çukurova Flour Industrialists' Association (ÇUSD)
- Mustafa HOŞGÖR, Deputy Chairman of the Association of Cereals and Pulses Processing Technologies, Storage and Analysis Systems (TABADER)
- İlker AKYÜREK, Deputy Chairman of the Association of Cereals and Pulses Processing Technologies, Storage and Analysis Systems (TABADER)
- Ferhan CAN, Board Member of the Association of Cereals and Pulses Processing Technologies, Storage and Analysis Systems (TABADER)
- Industrialists' Association of Turkey (TMSD)
- Suat ÖZTÜRK, Board Member of Turkish Feed Industrialists' Union (TÜRKİYEM-BİR)

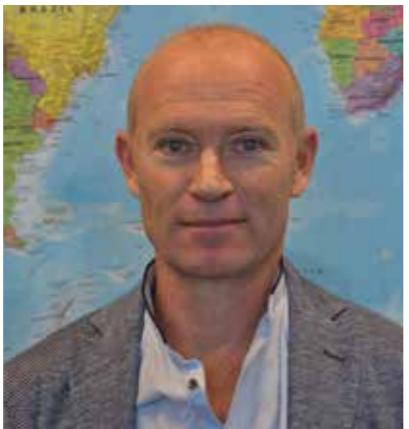


VICTAM and Animal Health and Nutrition Asia postponed to 18 – 20 January 2022

Due to the worldwide COVID-19 crisis, the management teams from the VICTAM Corporation and VIV worldwide had decided last January to postpone VICTAM and Animal Health and Nutrition Asia in Bangkok from March to July 2021. However, July turned out not to be an option either and the decision was made in May to postpone the event to January 2022.

"As the worldwide situation was still very critical last May, we decided that organizing an event in 2021 was not worth the risk. These are tough decisions to make but we could not risk the health of our exhibitors, visitors and staff. Today, COVID-19 is still disrupting businesses around the world and postponing the event to January 2022 will give all stakeholders room to breathe and pay attention to other vital issues. We hope that, in the meantime, the situation can return to relatively normal", says Sebas van den Ende, general manager of the Victam Corporation.

He continues: "Another reason to choose January 2022, instead of the second half of this year, is the full event calendar, which could create a conflict of dates for our visitors and



Sebas van den Ende

exhibitors. Our mission is to present a strong, value-adding event to the industry with high benefits for all parties. Due to the consequences of the COVID-19 outbreak, we are unable to succeed in this mission and therefore we believe it is the right decision for the market and we will come back stronger together in 2022. VICTAM and Animal Health and Nutrition Asia is scheduled to take place from January 18 – 20, 2022 at BITEC, Bangkok, Thailand. The objective remains the same: to realize the total animal feed and health event organized by VICTAM and VIV."

The Victam Corporation and VIV worldwide will also continue their partnership in Europe in 2022 by organizing VICTAM International and VIV Europe together at the Jaarbeurs exhibition grounds in Utrecht, the Netherlands, from May 31 – June 2, 2022. The set-up of this exhibition is different from the Asia event, as VIV Europe and VICTAM International will be co-located but with each exhibition in their own halls.

For more information, please visit the official websites: www.victamasia.com or www.vivhealthandnutrition.nl.

Victam Corporation and VIV worldwide continue their partnership in 2022

Last year the Victam Corporation and VIV worldwide announced their partnership in Asia for the VICTAM and Animal Health and Nutrition Asia 2020 exhibition in Bangkok, Thailand.

The two exhibition brands will further continue their partnership by organizing VICTAM International and VIV Europe together at the Jaarbeurs exhibition grounds in Utrecht from May 31st – June 2nd, 2022.



Mr. Heiko M. Stutzinger

"This means that the VICTAM International exhibition will move back from Cologne, Germany to its home country, the Netherlands, and where it all started in 1965, the Jaarbeurs in Utrecht. The set-up of the exhibition is different from the set-up in Asia as VIV Europe and VICTAM International will be co-located but with each exhibition in their own halls," says Mr. Sebas van den Ende, General Manager of the Victam Corporation.

"We are enthusiastic about the synergy and good cooperation that VICTAM and VIV have established. This partnership continues with a different program in Europe, which will

bring to the animal husbandry industry an even wider and richer platform in 2022. We look at the co-location of VIV Europe and VICTAM International as an important achievement after nearly 4 decades of independent growth and development of the respective events in Europe and in the world," says Mr. Heiko M. Stutzinger, Director of VIV worldwide, and Managing Director of VNU Asia Pacific.

"Today, the strong network of VICTAM in feed technology and animal feed processing, together with the Feed to Food concept that VIV Europe is famous for, are ready to deliver a very complete and professional platform to exhibitors and visitors." concludes Mr. Stutzinger.

The organizers are looking forward to welcoming the feed and animal health industries from May 31st – June 2nd, 2022 at Jaarbeurs in Utrecht, The Netherlands.

For more information, please visit www.victaminternational.com or www.viveurope.nl

VICTAM celebrates 55 years of organizing exhibitions for the animal feed industry!

2020 is a very challenging year for businesses and people around the world. It is, however, also a special year for the Victam Corporation as it celebrates its 55th anniversary this year. In 1964, a year before the official launch date, the idea was born to organize an animal feed exhibition in order to raise funds for combining the two Dutch Feed Associations at the time, St. Victor and the Algemene Molenaars Bond (Dutch general millers association), into one association, called Nimo.

As this trial edition turned out to be a huge success, the VICTAM Foundation was set-up to continue organizing the exhibition. The name derives from the combination of the names of the two former associations: St. VICTor and the Algemene Molenaars Bond. In 1965, the doors of the Jaarbeurs in Utrecht opened for the first official edition of the Victam exhibition. The event continued to develop over the years to what it is today: the event for the animal feed processing industry.

VICTAM FOUNDATION

In due course, the VICTAM Foundation widened its scope of activities to promote the growth of the animal feed industry in Asia as people started consuming more meat, fish and eggs. This first edition was quite the challenge for the Victam organization as there was no adequate exhibition hall available and the exhibition was held in a parking garage with no air-conditioning in Bangkok.

The organization is proud of the development of this event and with the support of its exhibitors and visitors, the Asia exhibition has grown steadily over the years and



Picture courtesy of fotobureau 't Sticht

exchanges, publishing articles, support of research projects and institutes, as well as contacts with and support of relevant associations. The VICTAM Foundation is the sole shareholder of the Victam Corporation, the organizers of the VICTAM and GRAPAS exhibitions.

ASIA

In 1991, the Victam Corporation organized the first Asia edition in Bangkok, Thailand. Piet Schrama, the general manager of Victam at the time, understood the growth of the animal feed industry in Asia as people started consuming more meat, fish and eggs. This first edition was quite the challenge for the Victam organization as there was no adequate exhibition hall available and the exhibition was held in a parking garage with no air-conditioning in Bangkok.



Utrecht, 1986. Picture courtesy of Fotodienst Schipper BV.

is now held at BITEC, the beautiful exhibition halls in Bangkok with more than 300 exhibitors and over 7.000 visitors.

FIAAP

As the exhibitions evolved over the years, more related sectors were added to the exhibition. FIAAP (Feed Ingredients and Additives Asia Pacific), with a focus on animal nutrition was first introduced in Asia and later to Europe. Nutrition is an important part of the animal feed production so it only made sense add this sector in order to make the exhibition represent the whole chain of animal feed production. In 2018, it was decided to incorporate FIAAP with VICTAM and continue under the name VICTAM. This way, the whole animal feed production process is represented into one brand.

GRAPAS

Closely related to the animal feed industry is the grain processing industry. The organization felt that this sector was underexposed so they set up GRAPAS (a combination of the words grain and pasta) as a separate brand and co-located with VICTAM. GRAPAS highlights the grain processing, flour and rice milling industries.

INNOVATION

The Victam exhibitions have always been about innovation within the animal feed and grain processing industries. The

organization introduced the Innovation Awards to highlight all these innovative companies at the show. The Aquafeed Innovation Award (presented by Aquafeed.com), the Animal feed and Nutrition Award and the GRAPAS Award (both presented by Perendale Publishers) are now coveted awards to win and are handed out every two years during either the Asia or the International exhibitions.

CONFERENCES

The Victam Corporation has developed partnerships to organize conferences during the exhibitions with current topics within the industry. Our longtime partners are experts on themes like pet food, aquafeed, nutrition, technology, grain processing, etc. They offer high quality content and the best industry speakers in their conferences. The conferences are a highly valuable addition to the exhibitions.

FUTURE

Due to the worldwide COVID-19 crisis, events are postponed and cancelled all over the world. This brings us to the question on how Victam will proceed with future events after this pandemic has been contained and life can hopefully return to normal. "For now, the outlook seems cautiously positive and we expect to continue with our events as soon as the restrictions are lifted. If necessary, by then,

we will implement extra safety rules to ensure all our exhibitors and visitors feel secure at one of our events", says Sébastien van den Ende, General Manager of Victam Corporation.

He continues: "we are also looking into alternative possibilities or other ways to offer

our marketplace to our visitors and exhibitors, such as an online event, in case a longer period of restrictions is needed. When we talk about online events, we are analyzing the whole spectrum from having a 100 percent virtual event to a physical event with a combination of on-site and online visitors to respect social distancing.

Despite the current situation, we believe events will start up again in their current format and we are looking forward to our future events, as the Victam Corporation has announced several partnerships in the past few months.

Together with Parantez International Fairs, we have combined our success



Utrecht, 1992. Picture courtesy of fotobureau 't Sticht

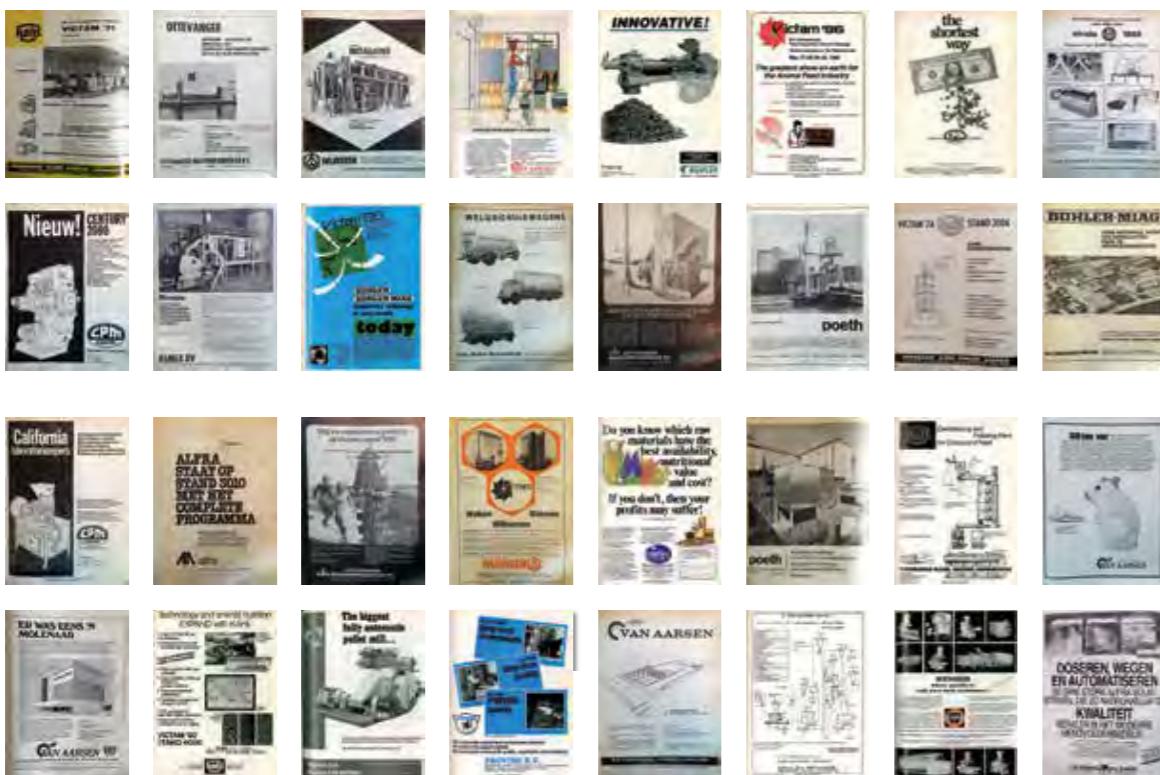
and expertise for the IDMA Exhibition. On May 27 - 29, 2021, the two companies will organize the exhibition under its new name: IDMA AND VICTAM EMEA in Istanbul, Turkey.

The Victam Corporation and VIV worldwide will also continue their partnership in 2022 by organizing VICTAM International and VIV Europe together at the Jaarbeurs exhibition grounds in Utrecht, the Netherlands, from May 31 – June 2, 2022.

This means that the VICTAM International exhibition will move back from Cologne, Germany to its home country, the Netherlands, where it all started in 1965: the Jaarbeurs in Utrecht".

A collection of advertisements from the industry over the years

Courtesy of De Molenaar and Feed International magazines



VICTAM
Corporation

55TH Anniversary
1965 - 2020

1965



Utrecht

1968



Utrecht

1971



Utrecht

1974



Utrecht

1977



Utrecht

1980



Utrecht

1983



Utrecht

1986

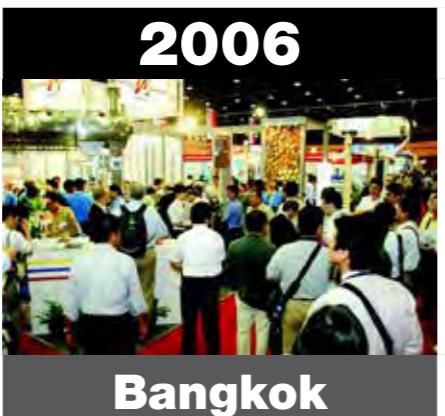
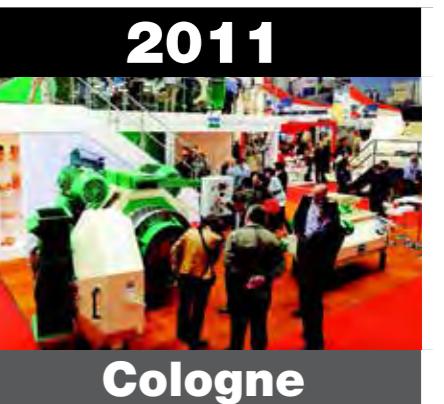


Utrecht

1989



Utrecht



VICTAM
Corporation

55TH Anniversary
1965 - 2020

“Each period has its own challenges”

Parting chairman of the Victam foundation, Kees Sijssens, looks back and takes a look ahead.

By Harm Klein, Victam Foundation

Last spring, Kees Sijssens withdrew as an active director within the animal feed industry by not seeking re-election as chairman of the Victam Foundation. We look back with him on his career in the animal feed and livestock farming industry. He also shines a light on the current situation and looks ahead to future developments. There is a lot to tell about the 22 years in a cooperative service and the period after that, but he limits himself to three themes: knowledge, the Netherlands as a guiding country and technology.

Practicing veterinarian

A Dutch cooperative in Utrecht, the Netherlands, and later part of the Dutch Royal Agrifirm Group, made a unique decision in 1989 by appointing Kees Sijssens, a practicing veterinarian, as deputy general director of their cooperative. The great advantage of his previous profession was that he knew the way of life, work and thinking of the members and customers very well and that he was used to making decisions quickly. At that time, the company was active in many areas in the agricultural sector. Later on, a different strategy was chosen with a focus on animal feed and agriculture.

Knowledge is key

“Developing knowledge is something you have to do yourself as a company. It is important to have sufficient “body” to spread the costs of a well-established R&D department over sufficient turnover (tons of compound feed). If it is not possible to achieve this within your own national borders, look for the possibility of achieving this abroad within profitable companies”, according to Sijssens. “Three objectives are achieved in this way: building up the level of knowledge, achieving sufficient returns and good development opportunities for employees.”

Sijssens continues: “Our management closely supervised that the companies to be purchased made sufficient profit and that they were in line with the strategic plan: production and development of complete feeds, concentrates, premixes, by-products, etc. The companies they

were looking for were located in Europe, but also in Asia, for example.”

“Even today, companies that invest in knowledge development and ignore rapid margin creation are more successful in the longer term”.

The Netherlands as a lead country

Sijssens takes the view that many do not realize how well the agricultural sector in the Netherlands has been organized over the years. “The

sector has developed at breakneck speed in recent decades. Examples are the creation of Nevedi, The Dutch Animal Feed Industry Association. It is still fascinating that when the association was founded, both private and cooperative companies became members. Really unprecedented at the time!”

“Other examples are all kinds of private and government-affiliated research institutes, with Wageningen University as one of the leading institutes. Together we have achieved a lot: the introduction of GPM, later GMP +, and other quality assurance systems. With these devel-

opments, we took a big step forward internationally. After intensive lobbying by the Dutch delegation within FEFAC (The European Feed Manufacturers' Federation), the quality systems were also on the agenda of their foreign colleagues.

The same applies to the more recent topic of sustainability and environmental themes. The Netherlands, with its agricultural industry, has thus built up a good international reputation.”



Kees Sijssens



Visit by the Victam Foundation board members to the process hall at Wageningen University. Kees Sijssens, 2nd from the left.

As far as animal feed production is concerned, Sijssens expects that intensive livestock farming will be maintained, albeit with various adjustments. “The question is whether the farmer will still need ready-to-use compound feed from one of the large factories. Will the purchase of raw materials and the usual production process still provide sufficient added value? The large farmer of the future will buy the basic raw materials and produce the feed himself but with concentrates from the factory, processed raw materials and specialist knowledge of the suppliers.”

Technology

After his Agrifirm period, Sijssens devoted himself intensively to technological development in the animal feed sector. A good example of this is his contribution to the board of the Victam Foundation in the role of chairman. The Foundation is affiliated with the trade fair organization Victam International and supports initiatives for animal

“Companies that invest in knowledge development and ignore rapid margin creation are more successful in the longer term”

nutrition and technological development in the animal feed sector worldwide. For example, scholarships are provided to national and international students who conduct promising research in the field of feed production, sustainability, etc. The Foundation also makes a substantial contribution to projects with the aim of promoting the circular economy and sustainability in general.

Another example is the setting up of the

International Feed Technology Congress, an initiative of the Victam Foundation and Wageningen University. This congress, which took place for the first time during VICTAM International in Cologne in June 2019, is an important step in ensuring that the industry is prepared for the changes that will come. This first edition was a great success. After the last day of the congress, a brainstorming session was held with about 20 experts from all over the world, who exchanged ideas about what should be done in the technological field in the coming years.

Conclusion

Kees Sijssens concludes that great progress has been made in the Netherlands over the years by building up knowledge, by being a leading country with initiatives and by constantly keeping an eye on technological challenges. “There are plenty of opportunities, the challenge is to find them and pick them up. This will certainly succeed through initiative and cooperation.”



Many projects in the feed and food sector receive annual support.

The Victam Foundation is an institution closely related to the Victam Corporation and has idealistic objectives and non-profit motives. The available funds come from the profit the Victam Corporation makes and from other resources. Through various projects, all profit of the Victam Corporation flows back into to the feed and food industries.

The Foundation aims to make a positive contribution to the technological / nutritional development and research of industrial sectors in the market of grains and in the production of animal feed and human food. Today, more than 10 programs and studies are financially supported.

With pleasure we describe some of them:

1. Development of software for dairy cow diet formulation in developing countries.

In the tropics a feed library with tropical raw materials, roughages, etc. is missing nowadays. Rumen8 is a free software application to support farmers and consultants regarding the formulation of balanced diets. When applying the software programme, the progress for the farmers is significant: higher quality feed, lower cost price for the pro-

duction of milk and an important raise in productivity. SNV's approach is to train local specialists and consultants with this programme resp. to roll out Rumen8 in Kenya, Ethiopia, Uganda, Tanzania and Zambia.

Applicant: SNV Netherlands Development Organisation

2. Project regarding investigation of a circular agriculture with less starch from primary products and more from co-products.

This five years long-term project concerns the objective to develop innovations required to manufacture quality (pelleted) feeds that contribute to the realization of a circular agriculture system with less starch from primary products and with more co-products from other agricultural activities and the human industry. Cereal grains contribute for 50% to the compound feed in EU-28, nowadays.



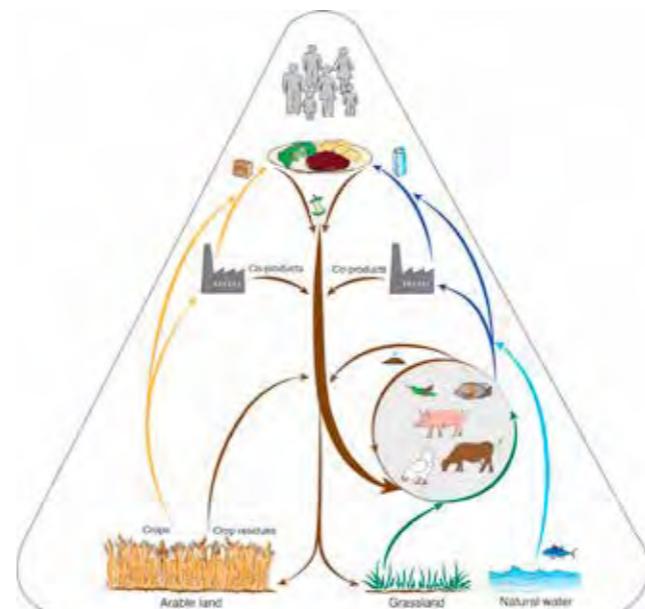
SNV's approach is to train local specialists and consultants.

Donations by Victam Foundation make a difference!

At this moment starch-rich cereal grains are necessary in feeds to ensure effective pelleting, physical quality and nutritional value. Compared to cereal grains, however, co-products have significant different physicochemical properties compared to grains.

The main problem of replacing cereal grains by co-products in pellet feed is that it weakens the pellets making them brittle, which will lead to losses in production, transport, storage and feeding. This project examines, in all broadness, the possibilities to replace cereals with 'inferior co-products', while maintaining the quality of the feed.

Applicants: Wageningen University, Aeres Training Centre Int., Feed Design Lab and Zetadec.



Circular agriculture system with less starch from primary products and with more co-products from other agricultural activities and the human industry.

3. Occasional and annual support to leading institutes.

We mention FDL (Feed Design Lab), IFF (International Research Association of Feed Technology), Nevedi (Dutch Feed Industry Association) and WUR Wageningen University.

4. Scholarships for Msc students

Some examinations:

- Effect of kibble characteristics on feeding behaviour in cats
- Effect of sesame straw porosity on the growth of fungal mycelium
- Impact of steam treatment on protein quality indicators of full fat soybeans from different origins
- Optimizing corn flake quality for dairy cows

5. Investigation with respect to the fungal treatment of biomass for efficient ruminant production in Vietnam.

At the moment, in Asia and worldwide rice straw is burned on the field with the result that this straw has not any function. It only results in a huge environmental pollution.

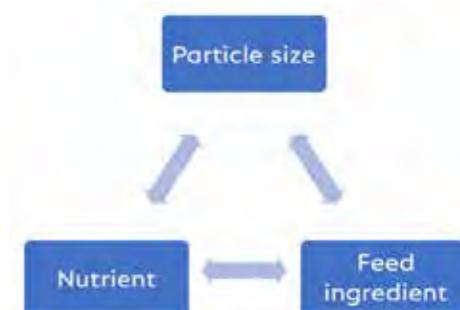


A rice field in Vietnam.

In this project, rice straw is treated by fungal treatment to make it digestible for the application as ruminant feed. The straw can be fed to at least 60 million cattle in Vietnam and beside this, other countries worldwide. It is expected that the results will provide high impact on the Vietnamese human community and local farmers.

6. Inquiry of methods for expressing and predicting particle size in relation to pig breeding

Particle size has an influence on the performance of pigs, though it is unclear to what extent particle size have their influence. This is due to the interaction of particle size and nutrient, and, the interaction between particle size and feed ingredient in the gastrointestinal tract. This interaction is not extensively studied up to now. Furthermore, it was investigated if breakage matrixes can be used in pig feed milling.



Finally

Victam's limited financial support has made public authorities and private companies to decide, to finance the initiatives with additional financial support as well; with the result, that budgets are available to carry out extensive research.

CPM introduces CPM Zenith: improving the quality of biomass pellets.



Interview with Maurice Bindels, Innovation Manager CPM Europe

Subsequently, CPM build multiple prototypes and started testing at their laboratory facility. "We have several machines in our lab where we can test all kinds of processes and products, used for the continuous development of both," Bindels says. "After testing in our lab, we continue testing in the field, in close cooperation with our customers. CPM always involves their customers in the testing phases of new products. It is very important to see how a new product works in a real production environment, where circumstances are different from our testing facility."

One of the concepts turned out to be successful within the biomass wood pelleting industry and was further developed into the CPM Zenith. "At the moment, CPM Zenith is available for the large wood pellet mill, type 7932-5. We are currently developing this new feature also for smaller wood pellet mills," concludes Bindels.

Showtime: What makes the CPM Zenith different from other cutting techniques?

"The CPM Zenith makes sure that all pellets are cut at the same length, in a controlled way. This means less dust will occur during handling and in the final bags, reducing the waste fraction. The absence of 'over-lengths' prevents a jammed transport line, from pellet storage to the pellet heating and avoids coming home to a cold house," says Bindels.

He continues: "traditional knives are positioned around the die circumference in order to cut pellets sticking out of the die. However, knives do not prevent longer pellets from flying out of the dies' counter bores, as they only cover a small section of the dies' circumference. For this reason, long pellets (over 50mm) are not cut and can be present in the end product. The ratio at which long pellets are present is, of course, dependent on the length at which pellets are produced from the die (when no means of cutting would be applied, the so-called 'zero measurement')."

"Breaker bars were specifically developed for residential wood pelleting. In this industry, pellet length is important as pellet quality is associated with its size. Besides (subjective) visual appeal, size matters when considering the (often) pneumatic pellet transport through narrow ducts in household central heating systems. Excessively long pellets can cause an obstruction, ultimately resulting in a cold house."

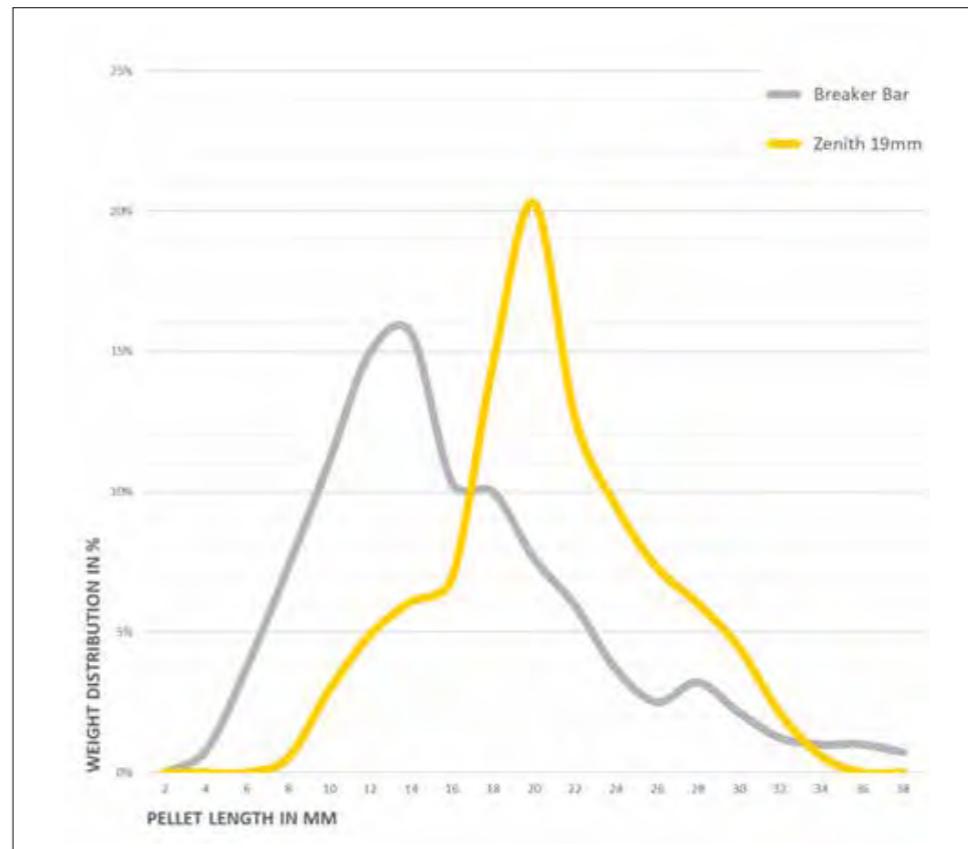
Initially, breaker bars covered a part of the die's circumference. When improvements were made their length was increased to cover almost the complete circumference (both for 7930-4 and 7932-5), making them much more effective than knives in avoiding 'over-lengths'.

CPM Europe has developed an innovative solution for all the challenges associated with traditional ways of cutting pellets for the residential wood pelleting industry. The CPM Zenith enables cutting pellets at the same and constant length, improves overall wood pellet quality and increases accuracy. We spoke with Maurice Bindels, Innovation Manager CPM Europe to learn more about this innovation and how CPM is adjusting their business to the challenges of Covid-19.

Showtime: What are the unique features/ advantages of CPM Zenith?

"The CPM Zenith is a new innovation for the wood pelleting industry, in particular the residential wood pelleting, and it creates pellets that are all of the same size which is an important aspect for the residential users of wood pellets. It increases the consistency in pellet length with 30%, delivering more accuracy and a better overall quality. The additional advantages are that so-called 'over-length' pellets do not occur anymore, there is a reduction of (too) short pellets (compared to breaker bars) and one can adjust the distance of the CPM Zenith to the die between 15 mm and 25 mm, for example," says Maurice Bindels, Innovation Manager CPM Europe.

He continues: "we started the research in-house and looked at how to control the pelleting process in detail, also when the pellet exits the die. Several state-of-art techniques were used to determine and analyse the results."



Pellets flying outwards out of the die, will (almost) always 'hit' a breaker bar and be broken into shorter pieces. This however also reveals the drawback of the breaker bar: almost every pellet hits the breaker, including those that are already of the right length resulting in a relatively high fraction of short pellets. However, some long pellets still do escape impact and so breaker bars cannot completely avoid 'over-lengths'. To make the fraction of 'over-lengths' minimal, breaker bars are often positioned very close to the die, meaning more short pellets are produced.

Showtime: Introducing a new product in the challenging Covid-19 period. Has this been a challenge for CPM?

"A very important part of developing a new product, like testing in the field, is contact with the customer. Covid-19, unfortunately caused a delay in testing. However, we were able to work on a safe procedure with our customers to ensure a safe environment for everyone involved and were able to further develop our product line without too much delay."

"A very important part of developing a new product, like testing in the field, is contact with the customer."

About CPM

The origin of CPM can be traced back to California's Napa Valley, where, in 1883, the Toulouse & Delorieux Co. manufactured presses, crushers and stemmers for winemakers. In 1931, the company created the first pellet mill, the 30 HP Flat Bed with stationary flat die, and the company changed its name to California Pellet Mill (CPM).

In the years that followed, CPM created more pellet mill models with additional features. In the 1980s, they greatly expanded their product offerings through the creation of Roskamp Champion with the acquisition of the Roskamp Roller Mill Company and Champion Hammermills. In 2002, Beta Raven, a leading supplier of feed mill automation and ingredient scaling systems, joined the team of CPM.

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The GRAPAS Innovations Awards and Conference

The GRAPAS Innovations Awards and GRAPAS Conference are an integral part of VICTAM International, taking place every year with the aim to highlight the best in food milling technologies. The 2020 GRAPAS Innovations Awards were due to take place on March 24th, 2020, at VICTAM Animal Health and Nutrition Asia in Bangkok, Thailand, but the spread of COVID-19 led to the postponement of the exhibition until January 2022.

Despite this, the GRAPAS Innovations Awards and Conference will again take place as part of VICTAM and will continue to serve as the leading platform for the flour, rice and pasta milling industry.

What are the GRAPAS Innovations Awards?

The GRAPAS Innovations Awards is an annual event celebrating the best in food processing technologies. Companies are given the opportunity to enter their latest food processing solutions into the GRAPAS Innovations Awards, to be assessed by a panel of international expert judges. The award(s) will be made to the most innovative and economically beneficial equipment, process or service in the milling of grains and cereals for food production.

The GRAPAS Innovations Awards and Conference are organised and hosted by Milling and Grain magazine (as part of Perendale Publishers Ltd), the oldest milling magazine still in print. First published in 1891, the magazine remains at the forefront of the food, feed and storage industries and are dedicated to serving the international milling market.

Each company that has entered a solution into the GRAPAS Innovations Awards will traditionally present their innovations onstage at the GRAPAS Innovations Conference, with the lucky winners announced during the VICTAM Reception.

Our GRAPAS applicants include:

- Eye-Grain's i-Grain Temperature and Moisture Reader
- Brabender's Lentil-based Snack Production Simulation
- Henry Simon's HSPU Purifier
- FrigoTec's Granifrigor Control-Logic
- Petkus' M12 Roeber Cleaner
- Yenar's rollCare Profile Measurement Device
- Henan Jingu Industry development Co's QINPAC Open-mouth Bagging System
- Wingmen Group's Termico Silo THT
- Dinnissen's Hamex Screen Exchange Hammermill

Find out more: bit.ly/grapas20



Dinnissen's latest Hamex Hammermill



Henry Simon's HSPU Purifier



Wingmen Group's Termico Silo THT



Yenar's rollCare Profile Measurement Device



Petkus' M12 Roeber

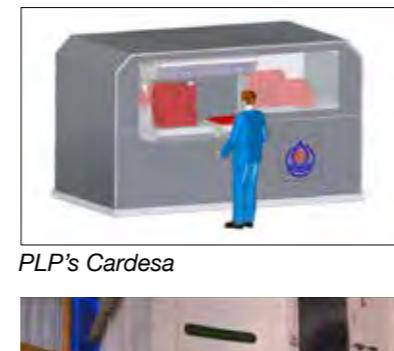
The Animal Feed and Nutrition Awards

As part of VICTAM trade exhibitions, Perendale Publishers also host the annual Animal Feed and Nutrition Awards. The Animal Feed and Nutrition Awards recognise unique innovations in the feed production and processing sector to have been released on the market in the past two years.

2019's Animal Feed and Nutrition Awards were a resounding success, with three winners crowned: Van Aarsen's Hot Start Steam Mixer, Geelen Counterflow's Electric Dryer and Famsun's SWFL170 Vertical Pulveriser.



Famsun's PTZL5000 Vacuum Coater



PLP's Cardesa



Agentis Innovations' M007 Cooler

Our Animal Feed and Nutrition Award applicants include:

- PLP Liquid Systems' Cardesa
- DSAND's Grawease
- Agentis Innovations' M007 Cooler
- Famsun's PTZL5000 Vacuum Coater
- DSAND's Proease

Find out more: bit.ly/feedawards20

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8th annual Alltech Global Feed Survey

Now in its eighth year, the annual Alltech Global Feed Survey has become the premier insight into the feed industry. The survey is cited in more than 80 articles or references each year, and it generates interest in all corners of the globe, from Brazil to Russia. Since the first iteration eight years ago, the survey has grown in size, content and reliability to become the most complete source available for feed industry metrics. The eighth Alltech Global Feed Survey draws upon data from 144 countries and nearly 30,000 feed mills.

Two years ago, the feed industry crossed the threshold of 1 billion metric tons and is expected to maintain an upward trajectory as the population continues to grow – particularly the middle class, which is increasingly showing its interest in protein consumption. Overall, the feed industry grew by a strong 3 percent last year, to 1.103 billion metric tons.

A GROWING INDUSTRY



Africa

We are seeing continued strong growth in Africa, with a 5 percent increase in feed production. In fact, no country within the region saw a decline in overall feed production. Morocco, in particular, stands out as a country that is demonstrating growth across nearly every species. The region itself did not necessarily see strong growth in every sector, though the areas that did show decline were not necessarily animal protein production-related, such as equine (-4 percent) and pets (-14 percent). These two areas represent a very small proportion of Africa's overall production, so their impact is minimal. Most of the major animal production species, such as those found in ruminant and poultry, did exceedingly well and, therefore, brought about high overall growth for the region.

Asia-Pacific

The Asia-Pacific region is home to several of the top-10 feed-producing countries, including China, India and Japan. China maintains its hold as the global leader in feed production, with a lead of about 10 million metric tons over the United States. While Japan did not show a significant change in feed production, India did, with a growth of 13 percent. This was largely due to growth in dairy, layer and broiler feeds, but it can also be attributed in some part to other unexpected species growth – such as in calves and the other ruminant category, where an increase in sheep and goat consumption has brought about new producers to accommodate this trend in protein consumption. Other countries that demonstrated higher growth variance included Pakistan, Myanmar and Laos.

Europe

Europe saw an overall growth of about 4 percent over 2017,

Continued on page 22 ▶

Editorial

Continued from page 21:

making it the second-fastest-growing region in the survey. Most of the primary protein areas saw growth; layer and broiler feed production were up 7 percent and 5 percent, respectively, while the feed production of pig, dairy and aquaculture were up 3, 4 and 5 percent, respectively. Beef was the only primary protein species in which there was a decline, though it was less than 1 percent. Feed production increases were seen in smaller-producing countries, such as Turkmenistan, Macedonia, Azerbaijan, Montenegro, Kazakhstan and Uzbekistan, as well as larger-producing countries like Russia, Spain and Turkey, all adding to overall production growth.

Latin America

The only region that didn't show much growth in overall feed production was Latin America. Brazil, Mexico and Argentina continue to produce the majority of feed in Latin America, for a combined total of 76 percent. Brazil remained steady in feed production, while Mexico and Argentina saw growth of 1 percent and 4 percent, respectively. Colombia's feed production grew by about 8 percent, primarily due to an increase in pork and egg production. Several countries saw a decline in feed production, such as Venezuela (-27 percent), El Salvador (-16 percent) and Chile (-8 percent). Regionally, broiler feed is down by around 2 percent over last year's data, and this was evident in countries such as Venezuela, Nicaragua, Guatemala and Colombia. Some of these countries suffer political unrest and instability. It has been suggested before that the feed industry could act as a barometer for countries' economies, and last year's results certainly lend some credibility to that theory.

Middle East

The Middle East is still the smallest region of production, but it did see feed production increase by 2 percent in 2018. The region remained flat in many species, but the primary contributor to the increased feed production was in the broiler species, which saw an increase of 5 percent regionally. Most of this increase was in Iran, which continues to lead the region at 10.7 million metric tons and saw an overall increase of 5 percent over last year. Following Iran is Saudi Arabia, with about 7 million metric tons of feed, though it didn't see any growth in feed production this year. Together, these countries produce nearly 65 percent of the feed for the region. While not a massive producer of feed, Qatar demonstrated strong growth at 11 percent, bringing its total feed production to nearly 500,000 tons of feed.

North America

North America again saw a steady growth of about 2 percent over last year. This is due to a small but consistent increase in

nearly every major species in the U.S. and Canada. There were no major decreases in feed production in any specific area, and overall, each species either grew or remained flat. Feed costs in this region are the lowest globally across all species, and with the availability of land, water and other resources, the region is expected to remain a primary contributor of feed production.

Dairy

Regionally, the dairy feed industry did not see any declines. Feed production remained relatively flat in Latin America and the Middle East. There was steady growth in North America and even more in Africa and Europe. Africa's growth was primarily due to a significant increase in both Morocco and Nigeria. Europe's shining star this year was Turkey, which saw an increase of 10 percent in dairy production; other contributors in the region include Ireland, Russia and the U.K.

Beef

North America has always led beef feed production and continues to do so. The region saw an increase of 3 percent, which will ensure it maintains its lead for now. Europe saw a small decline at barely 1 percent. In the past, Europe has been followed by the Asia-Pacific region, but many of the countries in that region saw declines in beef feed production, including Bangladesh, Mongolia, Indonesia, Taiwan, Vietnam and Pakistan. China and Australia both saw growth — but not enough to offset the overall decline in the region. Latin America saw strong growth of about 8 percent, and Mexico and Argentina primarily contributed to this. As a result, the Latin American region now takes third place in beef feed production.

Layer

Major growth areas for layer feed included Europe, Latin America and Asia-Pacific. In Europe, Poland and Uzbekistan each saw a growth of around 200,000 metric tons. Latin America's growth was biggest in Colombia, Peru, Brazil and Mexico. In the Asia-Pacific region, South Korea, India and Indonesia all saw growth of several hundred metric tons. North America saw an overall growth of 2 percent, in which both the U.S. and Canada saw increases in production. Africa saw small decrease in layer production, which was in large part due to declines in both Egypt and Seychelles.

Broiler

Demonstrating the continued interest in this versatile protein source, broiler production increased by about 3 percent in 2018. There was growth in all regions, with the exception of Latin America, in which a very small decline was observed. All other regions were up, though — particularly Africa, at 9 percent. Although this isn't huge growth from a production



Editorial

standpoint, it does show an overall trend: that as populations grow and become wealthier, interest in protein — particularly in palatable chicken — does as well.

Aquaculture

Overall, aquaculture feed saw a healthy growth of 4 percent over last year's feed total. This was primarily attributed to strong increases in the Asia-Pacific and European regions. The traditional Asia-Pacific leaders in aquaculture certainly showed growth this past year. Vietnam, India and Indonesia brought a combined additional 1.58 million metric tons of feed to the region. The region's leader, China, also saw an increase of 1 percent over last year. The primary European leaders either experienced strong growth or remained relatively flat. Those that did grow included Norway and Turkey, both at 7 percent, as well as Spain at a substantial 31 percent. The other four regions remained relatively flat or saw only a 1 percent increase or decrease in feed production, demonstrating the continuity of the industry as a whole.

Pet

The pet industry saw a growth of about 1 percent in 2018. This is primarily attributed to an increase in the Asia-Pacific region, which was offset by a decrease in the Latin American and African regions. North America and the Middle East both remained relatively flat. Previously, Europe had been in the lead for pet food production, but after a reassessment of 2017 numbers and despite a growth of 2 percent, it still ranks just behind North America. The primary countries with growth were Portugal and Turkey, which saw a combined 50,000-metric-ton increase in feed production. Europe is estimated in 2018 to have produced 8.6 million metric tons in total — only about 200,000 behind North America.

THE FUTURE OF PROTEIN PRODUCTION

Perhaps, someday, the advent of alternative proteins — such as lab-grown meats and plant proteins — will change the way we study the feed industry. Or maybe we will add a segment for insect protein. These are the concepts that will alter the feed industry in the future, forever changing the way we produce our food. For now, however, the Alltech Global Feed Survey is a snapshot of the industry as it is today.

This year marks the eighth iteration of the Alltech Global Feed Survey, an annual assessment of compound feed production. The data compiled represents 144 countries, reflecting information obtained through Alltech's global connections and relationships.

The feed industry is difficult to assess in its entirety, but Alltech strives to connect with feed mills, industry associations, government entities and other feed authorities to collect as much information and data as possible in order to provide an evaluation of feed production in each new year.

Further details pertaining to this survey are available online at alltechfeedsurvey.com, where an interactive map displays data for all of the countries in the survey. A presentation of the results given by Dr. Mark Lyons, president and CEO of Alltech, is also available for download.

alltechfeedsurvey.com Alltech.com

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Species

SWINE	
Africa	2.2
Asia-Pacific	126.8
Europe	86.0
Latin America	21.5
Middle East	9.8
North America	52.7
Total	293.2



* All numbers are in million metric tons, unless otherwise noted.

Pig feed production saw an increase of about 1 percent in 2018. The primary producing region for pig feed is Asia-Pacific — but, interestingly, this was also the only region that saw a decline in pig feed production. Mongolia, Vietnam, China, New Zealand and Japan all saw decreases in pig feed production, contributing to the overall downturn. From a tonnage standpoint, Europe saw the biggest growth in pig feed production, at about 2.2 million metric tons. Russia and Spain could nearly account for all of this, but others, including Finland, Denmark, France and Poland, also contributed. Latin America saw the greatest growth in pig feed as a percentage at 5 percent, with the largest growth seen in Mexico and Argentina.

RUMINANTS		
	Dairy	Beef
Africa	0.8	4.2
Asia-Pacific	34.8	12.9
Europe	44.4	21.6
Latin America	29.3	34.3
Middle East	6.6	1.5
North America	24.2	27.7
Total	131.2	83.1



* All numbers are in million metric tons, unless otherwise noted.

OTHER SPECIES		
	Aggregation	Pet
Africa	1.5	0.4
Asia-Pacific	26.5	3.2
Europe	4.0	8.6
Latin America	3.9	5.6
Middle East	0.5	0.1
North America	1.7	0.8
Total	40.1	26.6



* All numbers are in million metric tons, unless otherwise noted.

POULTRY		
	Layer	Broiler
Africa	9.2	12.6
Asia-Pacific	68.1	112.3
Europe	32.5	53.0
Latin America	22.8	60.8
Middle East	5.5	9.6
North America	14.5	53.4
Total	152.6	365.9



SHOWTIME | VICTAM 2020 23

Why should I care about moisture?

Alessandro Mario, Technical Sales Engineer

Imagine a world where moisture does not matter, a world where you can harvest when you want, where mould and toxins do not affect stored products, where mills always operate at maximum efficiency, and final products are perfect.

It sounds fabulous, but as it is well-known in the agricultural, feed, and related industries; moisture is a determining factor in every process. Let us have a brief overview of all the steps where it is possible to increase profits and efficiency by controlling the moisture.

HARVESTING AND THRESHING

Harvesting is the procedure where ripe crops are cut and picked up to then proceed with the extraction of the grains by another mechanical process called threshing. When the material is too dry, this can lead to loss, waste, and breakage of material. On the other hand, if it is too wet, it will limit the weight capacity of the machinery, causing problems with the threshing action.

STORAGE AND DRYING

After the previous operations, the yield needs to be stored and preserved accordingly to prevent mould, spoilage, or heat spots. Drying is a common practice to store materials safely, but if the yield is not dried enough, it is prone to mould and spoilage. Over-drying is an expensive waste of energy that can cause damage and breakage, making it again prone to moulds and insect attacks. Excessive drying can also cause most materials to shrink in size, causing yield loss.

CONDITIONING

This process is essential to reintroduce water in the material before the grinding mill and before the pelleting mill. Depending on the final application, the conditioning can also



heat the material to kill germs, to cook ingredients, and to gelatinate starch.

GRINDING

Grinding reduces the size of food materials to achieve different chemical and microbiological stability. Results vary based on machines and methods used, as well as the toughness and moisture of the material processed. More plastic or ductile material will need more energy to break; these characteristics of the material are dependent on moisture.

CONCLUSIONS

Summarising, the moisture affects the costs and the quality of the products. Knowing and subsequently controlling the water content of the material in every step of the process is necessary to improve efficiency, to reduce carbon footprint, and to save money. To achieve these results, sampling the material is not enough, because the samples are not representative of the full batch and the speed of the feedback process is not adequate. However, it is possible to manage real-time control in the process with inline sensors. An ideal moisture control system should have the following characteristics:

- In line with 25 readings per second providing quick feedback to the control
- Robust, made with high-quality materials to withstand tough industry conditions
- Linear output, stable in time, accurate and easy to calibrate
- Store multiple calibrations for multiple recipes
- Self-contained and easy to integrate into a pre-existing system
- Low maintenance and cost-effective
- High-temperature resistance may also be required
- Some applications could also require ATEX or IECEx certificate

Thanks to the expert research and development team at Hydronix, you can find all the above and more in the XT series of sensors with their unique digital microwave technology.

Hydronix is driven by the belief that by helping your success, we help to build a more sustainable future for our children and the generations to come.

For these reasons, Hydronix, with over 38 years of passion and expertise, is present in over 65 countries around the globe, providing a network of expert engineers on the field speaking your language.



Revenues rise, confidence falls among pet food leaders

By Maggie Forsee

A second-quarter 2020 survey conducted by Petfood Industry and Communications For Research presents the challenges caused by the COVID-19 pandemic.

Petfood Industry magazine has partnered with Communications For Research Inc. to research and report on the confidence level of industry executives within pet food markets globally each quarter, starting with the first quarter of 2020. For this second report, data was collected from April 27, 2020, through June 2, 2020, from pet food industry executives in a variety of business functions and job roles around the world.

With the COVID-19 pandemic sweeping the globe, industry executives' confidence level fell dramatically compared to the positive sentiment expressed in the first quarter of 2020. However, in contrast, a very strong majority of companies also experienced moderate to significant sales increases due to the pandemic, largely driven by increases at grocery and direct-to-consumer sales, and a very strong increase in online sales.

Significant shifts in confidence reported from pre-pandemic to current events

Despite these increases in sales, the decline in the confidence index level (overall confidence index of 77 compared to the base, established with the 2020 Q1 survey) reflects major concerns over current and future market conditions. Earlier this year, nearly all respondents reported average or above-average conditions and also expected conditions to remain positive in the future. However, the dramatic effects of COVID-19 have caused concerns over raw material disruptions in the supply chain as well as consumer pantry loading inflating sales; these major concerns seem to be driving the steep declines in sentiment around current industry conditions and in future expectations.

The sentiment around growth and opportunities within markets

also saw a steep decline. Negative responses around future and present opportunities went up 20% and 15%, respectively, compared to last quarter when 0% of executives believed there would be less opportunity or growth. Reasons mentioned around the pessimism in growth were an increase in vacant jobs and it being a difficult time to introduce products.

"Consumers will pick brands most familiar to them and will not deviate and try new brands," said one executive.

Pet food industry not alone

Overall, COVID-19 has affected the pet food industry, and as with other industries, some of the biggest effects have been changes to worker safety and sanitation, and companies and employees working from home. In times of change, the uncertainty of the future is apparent.

We are continuously in communication with executives to gather opinions on business conditions in the pet food industry as well as to research relevant topics and trends. The next Petfood Industry Confidence Index report is expected to be published in the November 2020 issue of Petfood Industry magazine. If you would like to participate in the survey, please visit this website: <https://bit.ly/3aG9V6z>.

Maggie Forsee is a project manager for Communications For Research Inc. This article appeared in the July 2020 issue of Petfood Industry magazine.

Read the 2020 Q1 Pet Food Confidence Index report
<https://www.petfoodindustry.com/articles/8994>

KSE's box dosing solutions: an innovative solution for product quality, process efficiency, and health & safety in micro additions.



Focus Focus Focus!

KSE Process Technology has been changing its course slightly over the last five years. The company has always had a strong focus in both industry and technology, working endlessly to improve system quality and to innovate the market with new solutions and technology.

In the past, the feed market used to be KSE's biggest market share, but in the last few years, petfood and premix business has seen its share grow. Each market is now equally important with each having their own challenges and specialism. Bringing those together, gives new and exiting insights to drive innovations and data gathering. Data has been at the heart of KSE for the last five years and will continue to do so for years to come. More insight on what is happening on machine level, simulations on what-if scenario's or in-depth technical analysis for service and optimization.

Predict, promise, perform and prove. Those are at the core of our motto.

Mechatronics approach: Automation and mechanics are a strong alliance

KSE's focus has always been on both machinery as well as automation. We thoroughly believe that the two go hand in hand and that the physical and digital world together make for a top of the range plant. We hardly ever talk about a "system" but of a solution, bringing those two worlds together as one.

KSE has always had a strong machine division with its ALFRA brand and a long-standing software package with its PROMAS brand. Having continuous learning as one of our core values, we analyze what is happening in the market, design a solution for that challenge, secure the solution in our automation platform and provide a total package to the market.

With this rigorous process in mind, we came to a challenge that no other company had a solution for so far: how to get to 100% automation in a flexible and clean way? Eliminating manual additions and other human intervention completely.

Specialism comes with partnerships

As a specialist, you always need to work together to cover the full scope. KSE specifically chooses to be a specialist in part of the factory and to work with other top of the range partners to tailor a solution to each project. As the Netherlands, we can be proud of the knowledge and position we fill on a global scale, with many great machine building companies that deliver worldwide best in class equipment.

We envision the market moving more and more to a data driven design process for new facilities, and connecting this to the lifecycle of the factory after its build. By use of extensive analysis, simulation (digital Twins) and pre-engineering by specialist partners, we deliver a top quality facility. During operations, we help to monitor, analyze and optimize its performance from the first day of operation until its last. This approach delivers extraordinary results.

Setting ambitious targets

As with each challenge, we started at the drawing board. If you are going to do something, going all the way is our way of thinking. We started with a solution to decrease manual labor while being fully traceable, clean with minimal contamination and being flexible. Later on, in the value engineering sessions together with a group of customers, we added additional goals like low maintenance, reusability of spare parts, transparent data management and easy interfacing. The only possibility to do this was by providing a modular portfolio to tailor the solution to each factory, market and geographic region.

This ended up being a portfolio called the BDS or Box Dosing Solution. This is a gathering of modular systems to automate all small dosings with boxes with at its core five main categories of focus:

- HSE (Health Safety and Environment)
- Personnel, rules & regulations
- Product quality
- Process efficiency
- Space constraints in factories

Narrowing the scope

The beauty of a modular system is, you can build it up over time. If the basis is good, you can keep adding solutions and improvements based on the market need as you go. We have had this experience with our ACT (Automatic Containerized Transport) before which has a similar modular approach.

After breaking down the different modules, from dosing units to tipping stations at the mixer or warehouse solutions for storage, we went back to our customers. In this stage, we executed a thorough value engineering session together to cover any areas of concern with the system. These sessions help define a first scope for a viable solution to the market. This first step proved to be a dosing unit with in and out feeder tracks to cover the dosing needs of all small inclusions.

MBD as the start of an era

The first machine in the BDS (Box dosing solutions) portfolio was born. A warehouse-based solution at pilot customer #1 and two MBD (Multi-box dosing) units at pilot customer #2. Early within the project, a thorough analysis was performed with KSE's Dosing Design Algorithm to define and simulate all needed operations and machine parameters.

This provided another challenge to the team as the dosing need had three characteristic and fundamental differences. The first is a set of materials that are used in small quantities in almost every formulation. These materials are called "high frequency". The materials with high frequency need to be dosed very fast as they are present in every batch.

Secondly, there is a subset of materials that are used frequently but vary much over formulations and seasons. These materials need to have a very flexible system to cope with the variance of needs.

The last and third set of materials are used very infrequently but are the largest group and consisting of tens to hundreds of materials that are used in some batches. This group needs a solution to be sorted, automatically gathered, and dosed when needed but these materials do not have a "static" silo available in the factory.

This deviation ended up with three separate machines using the same main principle: to dose into boxes that can be transported to the mixer or next process step. The MBDp which can have up to 10 parallel doses for the high frequency materials, the MBDx(x) that can handle up to 40 ingredients that vary over batches and a warehouse-based solution that can store hundredths of boxes and dose from box to box when needed.

Results matter, cut to the chase

The first machines have been running and the results are astonishing. We reviewed the results of our initial goals with the customer and those speak for themselves.

On HSE, the number of locations where people work is reduced to one and it is easy to create a safe environment where people work. Aspiration is completely covered, and heavy lifting is reduced to merely the filling of silos. There are no more open bags lying around that pose a risk.

On Personnel, there are much less fte. needed to run the system, saving hundredths of thousands a year in costs and no longer being reliant on finding people to work nightshifts or odd hours. The operators get a clear indication of the systems performance through reporting and keep optimizing the system through its user-friendly operation.

The quality of product is improved through higher accuracy of the dosing and less waste of the product. The numbers staggered our pilot customer: "If we evaluate now what the savings are on less waste of material, this is several times higher than anticipated". Through reporting all information is transparently available and the failsafe procedure ensures the quality standard of every product leaving the facility.

The efficiency of having multiple versions for high or low frequency materials paid offenormously, the customer mentioned. "Everything is ready exactly when it is needed. The system can easily cope with the needs for multiple lines, and there is less waste material all over the plant. Logistical routes are clear and quick, and access points to the system are safe and well thought off."

"Because of the small footprint of the system, there is a maximum amount of product storage in a small height. The system can be placed in a warehouse without much additions and run stand-alone. The total installation was but a fraction of traditional systems being ready in half the time anticipated!" the customer continued.

"Altogether the machine ticks all the boxes for our pilot customers' goals as well as our own high standards. Besides that, it is an aesthetically beautiful machine. As the customer says: "Usually we would avoid showing this when giving tours in the plant because it was dirty and inefficient. Now we start every tour here and are proud of the installation standing; there is no dust or dirt around and it aligns with how we want to position ourselves as a company."

More information

The MBD is only the first of machines to come within our BDS platform, but it already proves to be an invaluable new asset to premix, petfood and feed producers. For more information, please go to our brand new and improved website: www.kse-technology.com or go to <https://youtu.be/SBfE63pdfNQ> to see a full movie of the MBD machines in action.

Vitaris – a modular system for the best grain cleaning

By Sabrina Würsch

Every miller knows that it is the quality of what goes in that counts. That is why cleaning grain is one of the most important steps in the milling process. Removing impurities makes the biggest difference to the quality of the final flour and makes an essential contribution to ensuring food safety. Vitaris is a modular system from Bühler that enables the miller to achieve a high-quality final product reliably and efficiently.

Milling plays an essential role in the food value chain by grinding grain so that its nutrients can be more easily digested. Taking grain and turning it into flour has been the miller's job for thousands of years. But as simple as the basic process of grinding may sound, achieving a high-quality final product requires skill, experience and sophisticated machinery.

When wheat and other grains arrive at the mill, they contain many different types of impurities that have entered the mix at different stages. Metal, stones, weeds, other grains and general debris can all become part of the mix during growth, harvest, storage, and transportation. During the growing season, for example, too much rain can cause the wheat to become moldy or it might be attacked by insects and diseases. Shrunken, broken, diseased and damaged grains have to be removed. If these impurities are left in the mix, it will affect the quality and odor of the final flour and may pose a health risk. Certain impurities also affect machine efficiency. Cleaning is therefore an essential step in the milling process and one that, ultimately, has the most significant impact on the quality of the flour.

Removing each of these different types of impurity requires a different process – and therefore a different type of machine. A separator takes out the overs, a concentrator sorts light and heavy fractions, an aspiration channel takes out the lights in the light fraction, a destoner separates according to specific weight. Each of these machines takes up space in the mill and has its own energy requirements. What is more, as every batch of grain is different, each machine has to be fine-tuned for each batch – not just once, but over and over again.

With the Vitaris, Bühler introduces the first modular cleaning system on the market. Consisting of four combinable machines, the system guarantees highest food safety while providing optimal performance and minimal space requirements. In combination with energy saving technology, the Vitaris cleaning system is built with advanced sustainability standards in mind.



One for all, all for one

As standalone modules each machine performs a specific task in the grain cleaning cycle removing and separating fine and course particles and impurities. Each of them meets the highest standards in food safety, quality, energy efficiency, space efficiency and maintenance. Millers can deploy individual machines or add and combine machines from the start or at a later stage, according to their individual requirements. With the machines combined, the finely tuned cleaning system reveals its full strength.

Reducing cost by saving space and energy

Space is a very valuable resource in the compact set-up of modern mills. As every square meter on a mill's floor represents a significant cost, space must be used efficiently. Optimal machine performance and efficiency while keeping space requirements to an absolute minimum are key to reducing fixed cost. With an unrivalled small physical footprint, Bühler's overall cleaning system, as well as each individual component deliver the most space efficient solution available on the market.

This was achieved by designing smart machine layouts in which individual elements and components are stacked vertically.

In addition, consumption of fresh air was reduced in a version that recirculates air. Advanced air-recycling technology reduces the amount of fresh air needed by up to 90% and, subsequently, reduces the overall filter surface and thus maintenance thereof. Instead of manually regulating the air flow by flaps, adjustments are performed via electrical frequency converters saving up to 15% of energy.

Fast commissioning

All machines within the system are prewired. Connected to the plant's power supply at one central point no additional cabling is required and installation costs are kept to a minimum.

Overview: the Vitaris cleaning system is comprised of four machines:

- Air-recycling aspirator MVST for removal of dust and light particles before cleaning
- Separator MTRD for sorting course materials from fine particles
- Combistoner MTCH for removal of impurities with a higher specific weight and classification of grain into high-density and heavy fractions
- Recycling air aspirator MVSS for removal of fine impurities and dust

Conclusion

Every mill has its very specific requirements and preferences depending on its size, production volume, production processes as well as considerations for expansion and investment. Given the variety of building specifications and plant layout, what millers require are practical tailor-made solutions.

The Vitaris cleaning system represents a holistic solution that adapts to your needs. You can add individual machines from the Vitaris system to fit into your existing setup and add other machines at a later stage. The individual machines in the Vitaris cleaning system can be flexibly combined according to your specific requirements. For example:

- Vitaris separator MTRD + Vitaris combustoner MTCH (Vitaris Combicleaner)
- Vitaris separator MTRD + Air-recycling aspiration channel MVSS
- Vitaris combustoner MTKC + Air-recycling aspiration channel MVSS. + Air-recycling aspirator MVST

Whichever initial configuration you choose, the benefits of the Vitaris cleaning system will have a tangible impact on the overall performance of your plant. From excellent food safety and hygiene to energy savings, one of the most decisive aspects is the unrivaled ratio of performance in relation to physical space. For further information, go to our website or watch our video.

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Yenar RollCare

Profile Measurement Device

The RollCare Profile Measurement Device is the only one device designed using high resolution laser technology in the world that able to check roll profiles (angles, depth, land, radius and pitch) of roller mills while fluting and on the roller mills. After Measurement, this device allowing the user to compare by overlapping automatically the measured roll profile with the theoretical one and gives you the deviations. Even millers can control the carbide's angles before fluting operation whether it is correct or still need sharpening. So you can determine the optimal time with high accuracy Yenar Rollcare to re-flute the rolls.



KAHL flat die pelleting presses robust and powerful

For almost a century AMANDUS KAHL pellet mills have been applied successfully for compacting organic products such as compound feed, straw, dried forage, dried beet pulp and others. The product is pressed through a die by pan grinder rollers, formed into endless strands, and then cut to the desired particle length by means of knives.

KAHL is constantly developing machines in order to improve their capacities and economic efficiency. Pellet mills are particularly appropriate for products which are difficult to pellet.

The current production range of KAHL presses consists of 16 different sizes

Die diameter 175 - 1,500 mm
Drive motor 3 - 630 kW
Roller diameter 130 - 450 mm
Pellet diameter 2 - 40 mm

The small presses are driven by slip-on gears, the big presses by low-noise and low-wear worm gears with preceding belt drives.

A convincing technology

- 1 The product is fed by gravity. The large pelleting chamber avoids blockings.
- 2 The low roller speed of approximately 2.5 m/s ensures a good deaeration of the product.
- 3 As a result of the low speed, the press noise is below 70 dbA.
- 4 The thick product layer between the pan grinder rollers and the large die surface results in a high throughput, even in case of products which are difficult to pellet.
- 5 The roller gap can be adjusted during operation, thus the pellet quality can be controlled.
- 6 Permanently lubricated roller bearings with special seals prevent the product being pelleted from contamination by lubricating grease as well as grease losses.
- 7 Quick die changing increases the availability of the complete plant.
- 8 Liquid variations in the product are permissible.
- 9 Mixtures with high levels of fat and molasses can be effectively pelleted.
- 10 Each pelleting press is tested before supply under full-load simulation.

Material feeding

The material is directly fed to the press vertically from above by gravity without passing any deflectors and without the use of mechanical aids (forced feeding). Thus the danger of blocking or bridging due to inadvertent compaction, particularly with materials having a low bulk density, is excluded.

For material feeding and acceptance by the pelleting tools



a large press interior is available. The maximum effective diameter of KAHL dies is 1,500 mm. A large feeding area is especially necessary for materials with a low bulk density.

Pan grinder head

The pan grinder head forms one unit comprising roller axles and rotating pan grinder rollers. Number, diameter, width, shape (cylindrical or conical), and surface of rollers are selected to best suit the material to be pelleted. Materials with a low bulk density are handled with fewer rollers to provide more space. The circumferential roller speed of 2.5 m/s is relatively low which makes it easier to force the material between the rollers and the die. Furthermore the material can be deaerated more easily, the risk of roller slip is reduced and the press can operate under a noise level lower than that of the drive motor.

DISTAMAT

The hydraulic pan grinder head adjusting system makes it possible to optimise the distance between rollers and die during operation. The thickness of the material layer can therefore be influenced in such a way that the most economic press capacity is achieved. Thus it is possible to optimise the quality of the pellets.

The distance between pan grinder rollers and die is pre-selected, entered into the computer and automatically adjusted for each feed mixture.

The electronic control system keeps the value constant. Press output, pellet quality, security of operation, service life of the die and rollers and availability of plant are thus considerably improved.

The hydraulic system in connection with automatic load con-

trol allows deblocking of machine while running. The DISTAMAT system determines the gap between the pan grinder rollers and the die after the assignment of zero between pelleting press and measuring cylinder (the taring process).

For the gap measurement, a measuring cylinder is installed in the oil supply line of the hydraulic nut of the press. A displacement of the pan grinder head causes a displacement of the measuring cylinder. This is measured by a displacement sensor and processed as actual value by the control system.

The task of the DISTAMAT is to maintain the gap between pan grinder roller and die constant according to a preset setpoint value, independent of the product quantity. The gap is indicated in mm for an easier understanding. The values of the gap are indicated as repeatable values under the same measuring conditions - though they are no real measuring values.

Deviations between the indicated gap and the measured values are possible due to the indirect measuring method. A constant gap between pan grinder roller and die is an essential prerequisite for the pellet quality as well as a stable operation.

The resulting pressure is due to the load of the machine (modification of throughput, of humidity, or of product).

As it keeps the contact between pan grinder roller and die to the technically necessary minimum, the DISTAMAT minimises the wear. In addition, several safety functions for the pelleting press are realised using the DISTAMAT. For the functioning of the DISTAMAT the correct mechanical assembly of the pelleting press according to the operating instructions, the tightness of the unit, as well as a good condition of the wear parts are basic prerequisites. Functioning of the hydraulic pan grinder roller adjusting system: on the left in the rest position, on the right in working position.

Dies

Die thickness plus the number, shape, and diameter of the holes as well as the roller track width can be varied according to the material to be processed. A high specific press output with low energy consumption per unit is among other things greatly influenced by the retention time of the material inside the effective bores.

The specific roller track area varies between 25 and 30 cm² per kW of the installed power depending on the intended use and requested material compaction. Only with large specific perforated die areas can the installed power be completely converted into throughput.



Shearing effect

The shearing forces produced by the pan grinder rollers when running on the product layer between rollers and die result in a better pre-compaction, less crumbling and drilling of the material, better intake characteristics, shorter length of the effective bores as well as smoother, harder, and tougher pellets with the same power consumption. Conical rollers can be used for materials whose nature does not allow them to be subjected to additional shearing forces or which causes excessive wear on the die. Due to the direct material feeding, the large press interior, and the shearing effect of the rollers even very coarse material can be processed. With some products, e.g. waste, one size reduction stage can be saved by operating the existing grinding plant using a bigger mesh size. The net result is a saving of energy, a reduction in investment costs, and a simplified sequence of operation.

Change of pelleting tools

The dies are supported on the full circumference of the press case. The pan grinder head is seated loosely on the main shaft and is connected to the latter by feather keys. From above the pan grinder head is held in place by the adjustable hydraulic nut. Changing dies is therefore very easy and rapid, because except for the hydraulic nut no screws or clamps need to be loosened. The pan grinder head and die can easily be lifted by means of an electric chain hoist and be replaced without any need to clean the interior.

Automatization for optimum products

Switch and control panels for all plant sizes are designed, built, and installed by KAHL. KAHL electrical engineers develop custom-made application software for ensuring a high degree of operating safety and efficiency.

The EAPR is the pelleting press control system for an optimum, automatic operation of the flat die pelleting presses of the company KAHL. The EAPR controls and regulates all the relevant process parameters.

- Optimum operation of the pelleting press
- Low manpower requirements
- High availability due to the use of proven quality components
- Optional field bus system saves installation work
- DISTAMAT for continuous adjustment and control of the roller gap (option)

AMANDUS KAHL GmbH & Co. KG

KAHL's traditional markets are the biomass, animal feed technology and petfood market, the sugar industry, food and nutrient industry, and the chemical pharmaceutical industry. AMANDUS KAHL is one of the leading manufacturers of plants for conditioning feed, food, biomass, wood, straw, waste tyres, sewage sludge, plastics scrap as well as domestic and industrial waste.

From the small individual press to industrial pelleting plant: KAHL realise all the desired sizes. Construction of heavy machinery pays off: The plants are characterised by a high operational safety and availability also for continuous operation. The main machines as pan grinder mills, belt driers, pelleting presses and coolers, are produced in KAHL's factory at Reinbek near Hamburg – made in Germany. AMANDUS KAHL also offer consultation and assistance from the start of the project until after-sales service.

Laidig Bulk storage silo and reclaim systems for both cone bottom and flat bottom silos



Laidig understands the challenges involved within the Animal and Feed Processing industry, and works diligently with feed manufacturers and facilities to develop innovative ways of solving problems that include:

- ✓ Providing reliable, automated meal reclaim.
- ✓ Providing “Near-Total” cleanout
- ✓ Solutions that prevent bin hang-up.
- ✓ Elimination of Bridging and Rat-Holing
- ✓ Controlling product infestation
- ✓ Controlling product contamination
- ✓ Providing “Zero entry” for easy service access and operator safety
- ✓ Creating a first in-first out inventory control for traceability (and feed quality).
- ✓ Increased operational flexibility through large capacity storage of meals.
- ✓ Reduced need for manpower.
- ✓ Helping to control environmental issues.

Laidig has developed a wide range of storage and reclaim systems that can be tailored to an entire spectrum of application requirements. Known throughout the Feed Processing industry for our rugged, high-quality reclaim systems, Laidig excels in innovative, effective designs customized to store and reclaim materials with special handling requirements. Such materials include: **soybean meal, canola meal, dried distillers grains (DDGS), wheat bran, rice bran, other grain meals, and whole grains.**

Laidig's reclaim systems are a critical component to the success of modern day feed processing facilities. Each reclaim system is customized specifically to meet the needs and requirements of the product being handled.

Laidig offers FULLY AUTOMATED bulk storage silo and reclaim systems for both cone bottom and flat bottom silos, while also offering automated cleanout with zero bin entry. Each one is customized specifically to meet the needs and requirements of the materials they are handling. Laidig has designed and engineered a family of flat-bottom silo reclaim systems which offer proven performance and reliability for applications ranging between 2 and 45 meters in diameter, and for cone bottom silo applications, ranging between 2 to 13 meters in diameter. Laidig is the clear choice for the large capacity storage and reclaim of processed meals at Animal and Feed processing facilities. Our vast experience handling difficult materials has established Laidig as the industry leader in large diameter load out applications.

Laidig has pioneered the bulk storage and reclaim industry for nearly 60 years, and is recognized as the World leader in bottom reclaiming – SECOND TO NONE. Decades of experience in developing innovative and effective designs have enabled Laidig to expand with confidence into the unique material-handling applications of the 21st Century.

Laidig designs, engineers, manufactures, services all of the bulk storage and reclaim systems under one roof in our Mishawaka, Indiana location. Laidig's highly-qualified team has the knowledge and expertise necessary to provide solutions for some of the most difficult material handling challenges - providing numerous bulk storage reclaiming systems worldwide. Key areas include United States, Mexico, South America, Southeast Asia, and Europe.

More information

www.laidig.com

CGRAIN Technology and Consergra celebrated 15 years of cooperation in Thailand and South East Asia.



Mr. Joan Rius from Consergra and Mr. Trakool Chantasarn from CGRAIN Technology

Mr. Trakool Chantasarn from CGRAIN Technology and Mr. Joan Rius from Consergra are enthusiastically delighted about their journey together. Both companies have a great expertise in Grain Conservation system. With Consergra's technology and long experiences, CGRAIN Technology is able to enhance Thai rice and other grain millers' capacities in delivering high quality products to the market.

The application of cooling systems to grains and seeds has been around over 50 years. It is the most economic and ecological method for the conservation of cereals. Cold storage is especially beneficial for rice, corn, wheat, barley, soya bean, sunflower seed, sorghum, cottonseed, green coffee, alfalfa granules and compound feed, and it is the most ideal method for seed conservation.

The grain chiller, CONSERFRIO®, is applicable to existing silos and warehouses. In the case of silos, it can easily be connected in place of the aeration fan. The installation is usually instantaneous and does not require additional works. For warehouses, the special system of air conduction, for

Continued on page 34 ▶

Continued from page 33:

instance ventilation grids (below the pavement) and semi-circular ducts (above the pavement), must be installed prior to usage.

The process of Grain Chiller is as followed. The cold air produced by CONSERFARIO® is conducted to the lower part of the silo. This air begins to cool the grain of the lower layers, pushing the heat, which crosses the entire mass of grain upward absorbing its heat, and escapes in the form of hot air through the upper openings of the silo. The cooling ends when the air escaping from the grain mass is cold. In the case of refrigeration of warehouses, the process is analogous to that which takes place in silos. Cereal is a bad conductor of heat, that is, it acts as a good insulator. The heat radiation

on that cold grain, even inside a metal silo or warehouse, has little influence. Therefore, it does not require isolation for optimum grain conservation.

With CONSERFARIO®, the customers can be ensured that their grains and seeds will be stored in a perfect condition in terms of temperature and humidity. It avoids the typical problems of the conservation of seeds: development of heat, insects, fermentation, molds, toxins, and weight loss due to the metabolism of the grain, condensation of water. It allows higher humidity contents in the grain, without risk, thus avoiding the expensive and dangerous use of chemical treatments against insects. The product is stored in the best conditions. Operating costs are lower than storage costs with traditional systems. The CONSERFARIO® equipment is normally amortized during the first year of use.

About CGRAIN Technology

CGRAIN Technology is a recognised company in agricultural machinery, specialised in post-harvesting and grain conservation technology. They have been in the industry over than 15 years. The company is well-known for their best-selling products such as ventilation fan and grain chiller. It is best equipped with rice millers and feed millers in tropical area like South East Asian countries: Thailand, Vietnam, Laos, Myanmar, and the Philippines. Together with leading companies from all over the world, such as Consergra (Spain), SuperTech (Denmark), Shizuoka Seiki-Hansung (Japan-Korea), CGRAIN Technology could bring the new technology to help Thai agricultural industry to a better and advance future in producing high quality rice and grains to all over the world. Visit us at <http://www.cgrain.com> to learn more about us and our products and services.

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DISCHARGE CAPACITY : UP TO 600 TPH (WHEAT)

A large industrial silo is shown with a long red conveyor belt (HYDRASWEEP) extending from its base. A worker stands near the end of the conveyor. Below the conveyor are four small images showing different types of grain: wheat, corn, soybeans, and rice.

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MORILLON
SILO UNLOADING SYSTEMS

HYDRAZONE
discharger for
hopper silos

A large industrial silo is shown with a red cylindrical discharger (HYDRAZONE) attached to its top. To the left of the silo are five small images showing different types of grain: wheat, corn, soybeans, rice, and another type of grain. A red circle with the text "Exclusivity BOOSTER® High Torque" is located next to the discharger.

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exhibitors



15.000+
m² exhibition



9.000+
visitors



REGION
South-East Asia



FOCUS

feed milling technology, additives
and ingredients, pharmaceutical

2022 January 18 - 20

For more information, please visit: www.grapas-asia.com

GRAPAS Asia BITEC, Bangkok, Thailand

Co-located with VICTAM and Animal Health and Nutrition Asia



60+
exhibitors



600+
m² exhibition



2.500+
visitors



REGION
South-East Asia



FOCUS

grain, rice and flour milling
technology, raw materials, storage
and handling.

2022 May 31 - June 2

For more information, please visit: www.victaminternational.com

VICTAM International Jaarbeurs, Utrecht, The Netherlands

Co-located with VIV Europe.



300+
exhibitors



20.000+
m² exhibition



14.000+
visitors



REGION
Europe



FOCUS

feed milling technology, additives
and ingredients.

2022 May 31 - June 2

For more information, please visit: www.grapas.org

GRAPAS International Jaarbeurs, Utrecht, The Netherlands

Co-located with VICTAM International



50+
exhibitors



500+
m² exhibition



2.000+
visitors



REGION
Europe



FOCUS

grain, rice and flour milling
technology, raw materials, storage
and handling.

Contact details

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