

showtime

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

Issue 2 - Volume 25 - Autumn 2019



STRONG BRANDS COMBINED



VICTAM and **VIV** join forces to fuel growth in the Asian market. **VICTAM** and **Animal Health and Nutrition Asia 2020**

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International trade show organisers behind VIV and VICTAM are combining their events planned for Bangkok, Thailand, in the early part of 2020. The total animal feed and health event. *Read more on page 3:*

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**SAVE
THE DATE**

VICTAM and Animal Health and Nutrition Asia 2020

March 24-26, 2019, BITEC Bangkok, Thailand.
For more information: victamasia.com

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VICTAM and VIV join forces to fuel growth in the Asian market.

An allround Asian event!

International trade show organisers behind VIV and VICTAM are combining their events planned for Bangkok, Thailand, in the early part of 2020. This new partnership unites arrangements relating to the Animal Feed and Grain Industries Show VICTAM Asia in March 2020 and the VIV Health & Nutrition Asia Trade Fair and Forum originally planned to take place in Bangkok in January 2020. Both events will now be co-located at Bangkok's BITEC exhibition grounds on 24-26 March 2020 as VICTAM and Animal Health and Nutrition Asia, by VICTAM and VIV.

Strong brands combined in a single event

"Presenting the shows as parallel platforms at the same time within the same venue is a great way to bring together two strong brands for the Asia market, in an integrated format so that the visitor experiences them as a single event," says Sebas van den Ende, General Manager of VICTAM International B.V. "It is certainly a much more convenient concept for the industry than the original plan of staging them separately in Bangkok, only months apart."

"The discussions leading up to the partnership agreement have shown clearly that both organisations share a firm belief in the growth prospects offered by the Asian market," comments Heiko M. Stutzinger, Director VIV worldwide and Managing Director VNU Exhibitions Asia-Pacific. "Our own activities in Asia have gained significantly in importance over the past few years and we view the partnership for the March 2020 Bangkok event as a major next step in better serving the region."

Feed technology now with added ingredients

Stutzinger adds, "Both partners also share the view that we want to do more in serving Asia's feed and animal protein industries by jointly developing business opportunities within the segments of feed ingredients and additives, recognising that they comprise a fast-growing category within the Feed to Food supply chain. VIV has already made significant progress by including animal health more centrally in our events for animal protein industries. The focus in this case has been on medication and pharmaceutical ingredients with their related products and services. Many of these are applied to animals through the feed, of course. VIV's own perspective sees animal

health alongside nutrition as twin pillars supporting the further sustainable growth of the production in Asia of meat, eggs, fish and milk."

Bigger show

Sebas van den Ende predicts that the newly combined Bangkok event will attract more visitors as well as having a larger footprint in March 2020 by having exhibits and conferences on health and nutrition side by side with the displays and seminars about feed manufacturing technology. "It is a better deal for everyone," Mr. van den Ende remarks. "All under one roof you will find the latest information and systems for processing feed and grain, the application of the processed materials to animal nutrition and the connections to animal health."

"VICTAM is formally constituted in The Netherlands with the status of a not-for-profit Foundation to do good for the animal feed industry. The agreement to put VICTAM Asia 2020 together with VIV Health & Nutrition Asia fits that objective because we believe the industry will be happy about it. Almost 20 years ago there was an occasion in Europe when VICTAM and VIV events had to be combined at the last minute due to an animal disease crisis. The market at the time reacted well to that combination with no negative comments. I think we will see a similarly positive industry response to amalgamating our Bangkok shows in 2020."

"It must surely help that we are doing this in Asia. Looking around the Asian region there are many more examples of inte-

grations operating both feed mills and farms than in other parts of the world. VICTAM and Animal Health and Nutrition Asia, by VICTAM and VIV, has an expanded profile in feed manufacturing and farm production that will suit the interests of integrated companies."

Annual reunion

Heiko Stutzinger points to the extra benefit of continuity from having the Asian focus on nutrition and health in 2020, right in the interval between the recent VIV Asia show in March 2019 and the next one in March 2021. The timing directly helps professionals active in the Asian animal nutrition and health sectors who want to be sure they stay up to date, whether it is on product innovations and regulations, the effective use of ingredients and medication or the continuing global dialogue over the extent to which pharmaceuticals might be replaced by feed-related alternatives:

"A survey conducted in February this year has confirmed that professionals working in Asia prefer to meet on an annual basis and their preferred meeting place is Bangkok. We were already preparing to provide an appropriate platform for them in early 2020. Now with VICTAM and Animal Health and Nutrition Asia, by VICTAM and VIV, all professionals will find a supercharged event covering the full feed spectrum and also health products for all farm animal species. It gives everyone even more reason to come to Bangkok, refresh their knowledge and network across the animal protein industries in the Asia-Pacific region."



VICTAM AND ANIMAL HEALTH AND NUTRITION ASIA 2020

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INNOVATION AT THE HEART OF VICTAM & GRAPAS INTERNATIONAL 2019

An allround international event!

Global industry executives from the animal feed industry as well as the grain processing, flour milling and biomass pelleting industries traveled to Cologne in Germany to visit the 2019 edition of the renowned VICTAM International & GRAPAS EMEA exhibition and conferences.

Thousands of visitors came through the doors of the KoelnMesse exhibition center in Cologne. They had come from as far away as Australia and every continent was represented. There were official delegations from Brazil, China, Japan, Russia and Turkey.

The visitors were very pleased with the exhibits, the newly launched products as well as the high quality of exhibitors and stands. The exhibitors reported that, as always, the quality of the visitors was very high.

The profile of the **248 exhibitors** in the industry expo was very diverse. They represented **31 different countries** of which 80% are based in Europe, 9% from Asia and 11% in the rest of

the world. 91% of the exhibitors stated that they would participate in the next edition of VICTAM International. Asked for their assessment of the show, exhibitors scored it as 8 out of 10. Visitors scored the event 8,5 out of 10.

In all, there were over **5.000 visits** over three days with delegates from **85 countries**; the highest number of countries so far. Although the majority of the visitors were from Europe (82.5%), a growing percentage of the visitors are from other parts of the world, for example: 5% from Asia, 4% from the Middle East and 5% from Latin America. The geographical breakdown is shown below.

Over 51% of the visitors came from (among others) the animal feed industry, 8% from the pet food industry, 10% from the grain, flour and rice industries, and 7% from the aqua feed industry. The main reason for visiting this event was networking, visiting specific companies, looking for new products, staying in touch with suppliers and meeting new suppliers. 90% of visitors stated they would visit the show again in 2023.

During the three days of the show, there were the following conferences:

Aquafeed Horizons 2019 by Aquafeed.com: about production technology and specialist ingredients for aqua culture feeds.

Bioenergy International Pellet Workshop by Bioenergy Europe: about how technology is innovating the efficiency & quality of pellet production.

Feed Efficiency Seminar by All About Feed: about new approaches to feed processing and formulation.

Feed Strategy Seminar by WATT Global Media: feed additive solutions for reducing emissions in livestock and poultry production.

GMP+ Feed Safety Seminar by GMP+ International

Grain Storage Seminar by Milling & Grain by Perendale Publishers Ltd.: short presentations on a variety of subjects including silo design, aeration fans, grain coolers, ozone treatment of grain, grain sampling, remote monitoring systems for silos, and much more.

GRAPAS & Global Milling Conference by Perendale Publishers Ltd.: a full day of informative and innovative presentations from the milling industry's best and brightest!

IFTC 2019 by Wageningen University & VICTAM Foundation: directed towards the evolvements in animal feed processing from a scientific and technology standpoint.

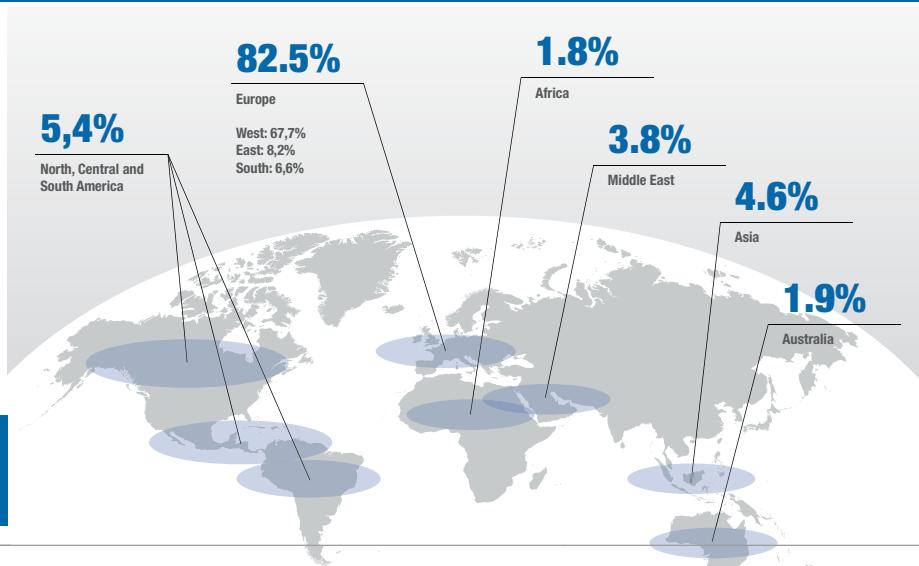
Petfood Forum Europe by WATT Global Media: education on the latest research and newest information on pet food nutrition, global pet food marketing trends and growth, pet food safety, processing, packaging and much more.

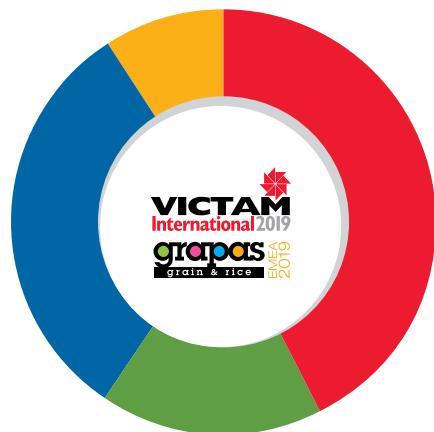
Additionally Victam arranged two feed industry tours to the Nijssen/ Granico feed mill and the Feed Design Lab in the Netherlands. These proved very popular with the visitors.

Visit our VICTAM International YouTube channel for in depth interviews with speakers, award winners and many more reports by our VICTAM news crew.



Geographical breakdown of visitors



**Job functions of visitors %**

CEO, directors	42,7
Nutritionists, formulators	16,8
Management	31,5
Other	9,0
Total	100%

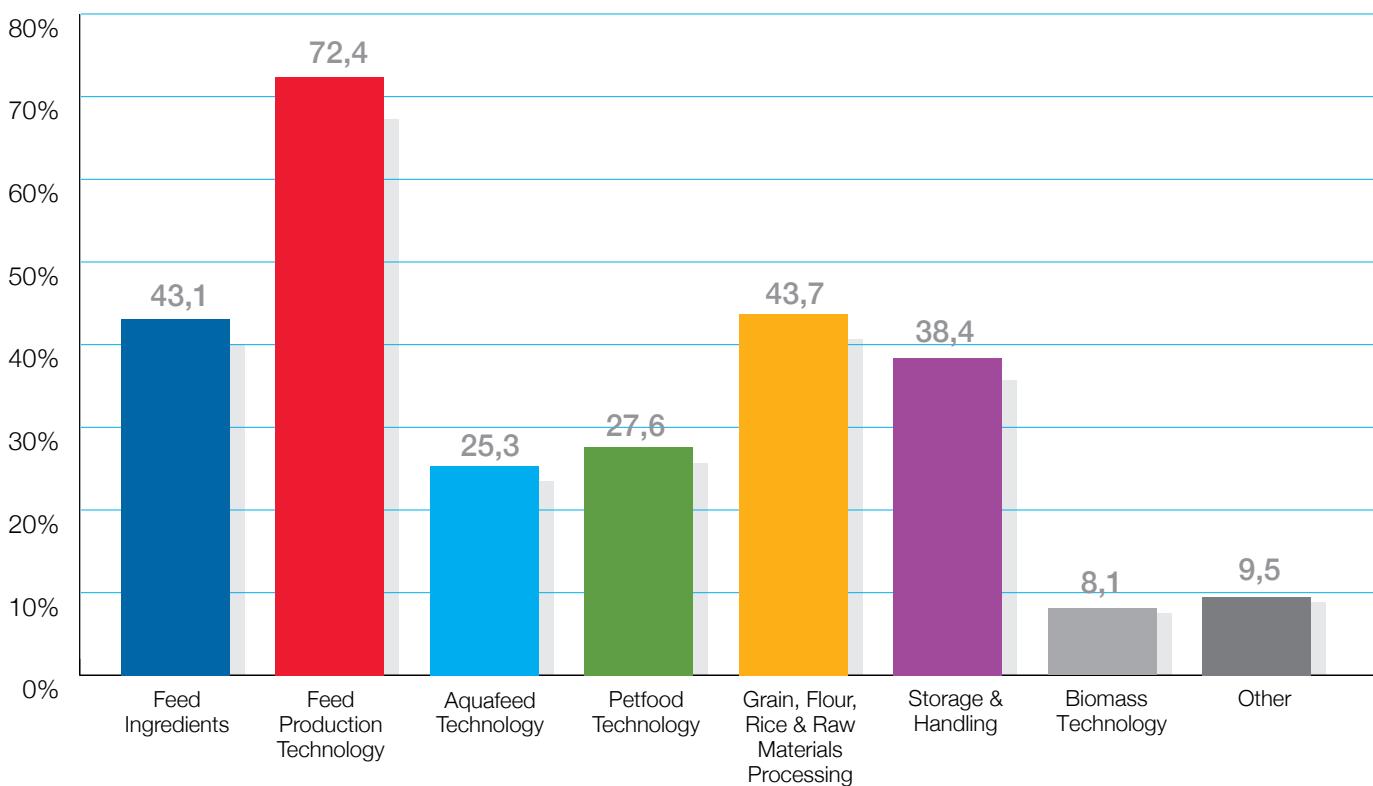
Influencers in the purchasing process %

Final decision maker	28.1
Co-decision maker	39.3
Influencer	16.9
None	15.7

Total	100%
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**Sectors of interest to the visitors**

The total of these percentages is over 100% as a number of visitors expressed an interest in more than one sector



“ Some visitor quotes

Asked for their assessment of the show, visitors scored it as **8,5 out of 10**.
90% of the visitors stated that they would visit the next edition.

“Great exhibition, well done!”

“It was a good experience for me, to learn about solutions and innovations.”

“ Some exhibitor quotes

Exhibitors gave the quality of the visitors an average number of **8 out of 10**.
92% of the exhibitors surveyed indicated that they would exhibit again at the next edition.

“We had a successful show. Great work!”

“The quality of visitors was excellent. We were able to do some great business”



The perfect launch platform

Many new products were on show as the exhibitions provided the perfect platform to launch new products and services to the market. There were 39 innovations on display. Some of these were awarded the highly coveted **INNOVATION Awards**. During the Network Reception on the first show day, the winners of the coveted **INNOVATION Awards** were announced:

The **GRAPAS Award** had three winners this edition:

★ **Buhler**: LumoVision.

★ **Petkus**: OptoSelector 901t

★ **Selis**: Dynamic Angular Positioning System (DAPS)

The **Animal Feed & Nutrition Award** had three winners as well:

★ **Van Aarsen**: Hot Start Steam mixer

★ **Geelen Counterflow**: Counterflow Cooler Plus

★ **Famsun**: SWFL170 Vertical Pulveriser.

The **Aquafeed Award** had two winners:

★ **Prairie Aquatech**: ME-PRO protein ingredient for aqua feed

★ **Geelen Counterflow**: Electric Dryer

Upcoming events

VICTAM and Animal Health and Nutrition Asia 2020.

GRAPAS Asia 2020 is co-located with this event.

March 24 – 26, 2020

BITEC, Bangkok, Thailand

Organised by Victam Corporation

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The Netherlands

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Exhibitors at VICTAM International & GRAPAS EMEA 2019

4B Braime Components	KSE Process Technology
Abraziv Kft.	La Meccanica srl di refro
Actemium	Lachemeier-Monsun A/S
Adifo software	Laidig Systems, Inc.
AEC Systems	Law Print & Packaging
Aerox BV	Lumex Analytics GmbH
Agrena	M.K. Associates
Agromatic AG	Mahesh Agro Food Industries
Alapala Machine Industry & Trade Inc.	MAKOBA GmbH & Co. KG
ALAPROS	MANGRA, S.A.
Allgaier Process Technology GmbH	Maschinenfabrik Reinartz GmbH & Co. KG
Almex	Matricir S.L.
Altinbilek Makina Ins. San. Ve Tic. a.s.	MCAT GmbH
Amanus Kahf GmbH & Co. KG	Mill Service S.P.A.
Ambros Schmelzer & Sohn GmbH & Co. KG	Milling and Grain
Andritz Feed and Biofuel A/S	Misset International (Reed Business)
Aquafeed.com, LLC	Mitchells
Arodo	Morillon
Awila Anlagenbau GmbH	Mühle + Mischfutter im Verlag
AZO GmbH + Co. KG	Moritz Schäfer GmbH & Co. KG
Bechtel GmbH	Müller Betlex BV
Bedeschi Spa	Münch-Edelstahl GmbH
Behn + Bates Maschinenfabrik GmbH & Co. KG	Mysilo Tahil Depolama Sistemleri San ve Tic A.Ş
Bentall Rowlands Storage Systems	Nawrocki Pelleting Technology
BM Silo	Neelkanth Gum & Chemicals
Brabender GmbH & Co. KG	Neelkanth Polymers
BUCHI NIR-Online GmbH	Nerak GmbH Fördertechnik
Bühlner Group	Neuero Industrietechnik
Bunting Magnetics	Niczuk Metall-PL Sp. j.
Carl Aug. Picard GmbH	OET
CARVEX Verfahrenstechnologie für Lebensmittel und Pharma GmbH	Omori Europe B.V.
Cetec Industrie	Optima Preformen GmbH & Co. KG
CFE Group	Orhand Discharging Systems
CFF GmbH & Co. KG	Orient-Sunrise International (Qing-dao) Co., Ltd.
Changzhou Jumeila Mould Technology Co., Ltd.	OrtaŞ Milling Machinery
Changzhou Ketten Transmission Co Ltd.	Ottevanger Milling Engineers
Chief Industries UK Ltd.	Parantez Group
Cimbria AS	Pavan S.p.A.
Clextral	Payper, S.A.
Comav SRL	Pelleting Consumables Europe
Concerti S.p.A.	Pelleting Technology Netherlands
CPCM Europe	Pentlands Publishing Ltd.
Cristiano Torre S.r.l.	Perten Instruments GmbH
CTS Makina Demir ve Çelik Ürünleri San. Tic. A.Ş.	PETKUS Technologie GmbH
Danavit A/S	Pfeuffer GmbH
Danvaegt A/S	PLP Liquid Systems SRL
Datastor Systems Ltd	Poeth BV
Dedoussis Eng. Ltd.	Polem BV
DEĞIRMEN INTERNATIONAL MAKINA SAN. TIC. LTD. STİ.	Prairie AquaTech
Deswarte nv	Precia Molen
Deutsche Müllerschule Braunschweig	Premier Tech Chronos
Dinnissen BV	PRES International
DMN-Westinghouse	Prive SA
DSL Systems Ltd	Promtek Ltd.
Dutch Milling Technology International B.V.	Riedel Filtertechnik GmbH
E.F.S.-Holland B.V.	RIELA Karl-Heinz Knoop e.K.
Ekokraft AG	RMIG
eFeedLink Pte Ltd	Rosal Instalaciones Agroindustriales S.A.
Keller HCW GmbH	Rotex Europe Limited
Kemin	Rueter Maschinenbau GmbH & Co. KG
Kettenfabrik Unna GmbH & Co. KG	Salzhausener Maschinenbautechnik Salmatec GmbH
Koan Cheng Fa Industrial Co., Ltd	Sarda Gums & Chemicals
	Sarda Starch (P) LTD.

INNOVATION Awards

During the Network Reception on the first show day, the winners of the coveted Innovation Awards were announced.

To put all the innovations presented at VICTAM International 2019 in the lime-light, there were three innovation awards presented at the event: the Animal Feed & Nutrition Award, The Aquafeed Award and the GRAPAS Innovation Award



THE GRAPAS AWARD HAD THREE WINNERS THIS EDITION:



Buhler with the LumoVision, a data-driven optical sorting technology that closely targets grains affected by Aspergillus Fungi, the cause of Aflatoxin contamination.



Petkus with OptoSelector 901t, a unified system of analysis combining the full-color RGB method and a special light transmission method based on the translucent features of the seeds.



Selis with their Dynamic Angular Positioning System (DAPS). The DAPS system has brought a big solution to the important problems on the smooth roll passages and fine grooved roll passages

THE ANIMAL FEED & NUTRITION AWARD, THREE WINNERS:



Van Aarsen for their Hot Start Steam mixer. The Hot Start Steam Mixer helps to optimize the feed conditioning process and feed safety while minimizing spoilage.



Geelen Counterflow for the Counterflow Cooler Plus which is a new generation counterflow coolers that improves product quality, operational costs and efficiency.



Famsun for their SWFL170 Vertical Pulveriser. The SWFL170 vertical pulveriser is designed for particle size reduction in the industry of aquatic feed production, including but not limited to the feed production for fishes, shrimps, crabs and turtles.



aquafeed.com

THE AQUAFEED AWARD, TWO WINNERS:



Prairie Aquatech for their ME-PRO protein ingredient for aqua feed. ME-PRO is a plant-based protein ingredient that reduces aquaculture's reliance on dwindling supplies of fish-meal.



Geelen Counterflow took the award home for their electric dryer. Recovering the energy and water contained in the exhaust air of the dryer, the Electric Dryer will reduce energy consumption for drying by up to 65%.



Sustainable solutions win Aquafeed Innovation Awards 2019

A plant-based protein and an electric drier ran away with this year's Aquafeed Innovation Awards presented during Victam International in Cologne, Germany, following the 12th Aquafeed Horizons technical conference. The Aquafeed Technology award was given to Sander Geelen, Managing Director Geelen Counterflow and the Aquafeed Ingredients award to Mark Luecke, CEO, Prairie Aquatech by Aquafeed.com's editor, by Lucía Barreiro, and sales manager, Michael Van den Dries.

Today's aquafeed producers demand sustainable ingredients and methods of production, and their suppliers are not just keeping up, but often helping drive the trend. The products of two such companies impressed the Aquafeed.com panel of independent judges, who selected them from a strong line up of contenders as winners of this year's awards.

A microbially enhanced plant-based protein

Fishmeal is an ideal protein for fish feed, but finite fishery resources and a booming industry means alternatives must be developed. There has been a rush to fill the protein gap from insects, algae and single cell protein producers among others, but most of these are struggling to scale up to the production levels required by feed manufacturers. The approach taken by Prairie Aquatech is to develop a microbially enhanced plant-based protein ingredient for aquafeed, ME-PRO; it is already being incorporated into aquafeed diets in the United States and has been trialed with multiple species worldwide.

ME-PRO is produced at Prairie AquaTech's AgTech Center in Brookings, South Dakota, a facility that focuses on research, testing and trials of innovative plant-based technologies. The center comprises fermentation units for protein production, a recirculating Aquaculture System (RAS) for multi-species testing, a feed plant for testing feed formulation and production, and a laboratory. It has recently completed construction of its first commercial-scale production facility in Volga, South Dakota. At full production capacity, the facility will produce 30,000 metric tons of ME-PRO from non-GMO soybeans per year.

Non-GMO soybean meal is treated with a natural, non-GMO, food-grade microbe (*Aureobasidium pullulans*), an all-natural process created at South Dakota State University, to create a high value (70% as fed, 100% digestible) protein to extend, or even replace fish meal. However, ME-PRO provides another benefit to aquaculture in that it is proven to significantly lower phosphorus discharge while providing high P availability to the animal. In one case, a pond-based trout hatchery was able to reduce their discharge by 69%, allowing the hatchery to survive and thrive, sustaining high-value customers.

Cost and environment saving dryer

The dryer is by far the single biggest energy consumer of any extrusion line, typically consuming 50-60 percent of the line's energy. The judges were most impressed with the cost savings and environmental advantages afforded by this dryer, noting



also that there are many locations around the world where gas and electricity are alternately unreliable, with huge price spikes.

The Electric Dryer uses heat-exchangers to recover up to 65 percent of all energy and water from the exhaust of the dryer and re-uses that heat after boosting the temperature of the recovered heat by industrial, high temperature heat pumps. This way the dryer can run 100 percent on electricity instead of natural gas, while 'scope 1 CO₂ emissions' can be eliminated. By also installing gas burners, producers can switch back to natural gas in periods when electricity prices are temporarily too high, or in case technical redundancy is required. By upgrading to the new ZAS MkIV air unit, producers can choose to install electric heating capacity in small modular steps. As soon as prices for natural gas or CO₂ emissions go up/and or electricity prices come down, additional heat pump capacity can be installed to optimize operational costs. By installing Counterflow Remote Diagnostics, Geelen can remotely monitor all mass and energy flows in the dryer 24/7, enabling it to provide the dryer owner or operator with detailed recommendations on how to optimize drying effectiveness and efficiency.

Reducing energy consumption by up to 65 percent and eliminating CO₂ emissions, has a potentially major impact on the operation cost and sustainability of the plant. It can also have a very significant impact on the sustainability of the industry overall, with a reduction in CO₂ emissions per dryer of thousands of tons of CO₂. The condensation of humidity in the exhaust air that is triggered in the heat exchanger leads to a significant reduction in odor emissions which will either reduce the risk of odor issues or reduce the cost of odor treatment – an advantage that impressed the judges.

Aquaculture is evolving rapidly. Its continued success rests to a great extent on the ingenuity and dedication of the feed industry in meeting the challenging and exacting needs of this rapidly growing and diverse sector. Aquafeed.com has presented these prestigious awards since 2012, to recognize and honor the achievements and contribution of the allied industries to the advancement of aquafeed development. The next Aquafeed Innovation Awards will be presented at Victam Asia 2020.

Prairie AquaTech:

South dakota company receives international acclaim for improving feed performance in aquaculture



Prairie AquaTech receives the 2019 Aquafeed Innovation Award in Cologne, Germany (Cologne, DE) — Prairie AquaTech of Brookings, SD (USA) is the 2019 winner of the internationally curated Aquafeed Innovation Award for Ingredients. The award was presented to the company during the 2019 VICTAM International Feed & Grain event held in Cologne, following the “Aquafeed Horizons” technical conference.

Independent judges from Asia, Europe, Australia, New Zealand and the USA selected Prairie AquaTech on the merits of its protein ingredient, “ME-PRO.” The ingredient was designed to provide the aquaculture industry an effective and responsible alternative to reliance upon wild-caught stocks of forage fish. ME-PRO uses a patented process to enhance plant protein. The result is an exceptionally high quality protein ingredient that’s been proven to be responsibly sourced, provide excellent performance in feed mills and on fish and shrimp farms, and have a positive effect on the environment.

Though ME-PRO’s source and performance are remarkable, the Aquafeed Innovation Award was ultimately bestowed on account of the ingredient’s demonstrated ability to significantly lower phosphorus effluent from aquaculture into ground water, lakes, rivers and the ocean. Phosphorus discharge is one of the leading contributors to environmental pollution around the world. Excess phosphorus in the water system contributes to a harmful process called eutrophication, resulting in lower water quality, higher costs, and stagnation of aquaculture growth.

Lucia Barreiro, editor of industry news source aquafeed.com and co-producer of the Aquafeed Horizons event stated, “The aquaculture industry succeeds on the quality and applicability of innovation. We absolutely must meet and exceed upon the challenges that present themselves to our industry. Prairie AquaTech’s ME-PRO is not only an excellent protein ingredi-

ent, it’s helping the industry become more successful. They should be proud of their work and we wish them continued success.”

Prairie AquaTech CEO, Mark Luecke, was present at the award ceremony and replied, “Aquafeed is a globally recognized source of industry news and information – their recognition of our work is very important. This award is the result of our team’s passion for developing high quality products that support the aquaculture value chain, and our persistence to achieve production at scale.”

Prairie AquaTech has recently completed construction of its first commercial-scale production facility in Volga, South Dakota. At full production capacity, the facility will produce 30,000 metric tons of ME-PRO from non-GMO soybeans per year. ME-PRO has been successfully used in aqua feed formulations around the world in multiple species, such as salmonids, bass, and shrimp. ME-PRO was developed by a partnership between South Dakota State University and South Dakota Innovation Partners, an investment company established to start and manage companies dedicated to meeting crucial challenges in health and nutrition. Prairie AquaTech is part of South Dakota Innovation Partners’ portfolio of companies.



More information

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 or www.mepropowered.com

VICTAM International 2019

IFTC 2019: A GREAT SUCCESS!

By Dr A.F.B. van der Poel, Wageningen University and
Prof. dr L.A. den Hartog, VICTAM Foundation!



On the 12th and 13th of June 2019, Wageningen University, supported by the VICTAM Foundation, hosted the 1st International Feed Technology Congress (IFTC 2019) in Cologne, Germany. This 1st IFTC was held during the 2019 VICTAM International exhibition.

Organised for the first time, the congress brought together 120 researchers from universities, research institutions and industry. The congress exhibited thematic presentations by international keynote speakers as well as oral and poster presentations. Themes of this technology congress were the valorization of raw materials by technology, the current process developments and issues dealing with the results of feed technology for feed formulation.

A 'Book of Abstracts' was edited/compiled by Thomas van der Poel and Yvonne van Holland from the Wageningen University/Animal Nutrition group and was presented to all participants. The contributions to the 2019 IFTC were all very interesting and the majority will be published as a special issue of the Journal 'Animal Feed Science & Technology' by the end of the year.

Organizing such an event is always a laborious job and therefore we would like to thank the Advisory Board of the congress being Drs C. Sijssens, Prof. dr L.A. den Hartog (Foundation Victam), Dr R-M. Blume, (IFF Germany) and Prof.

dr W.H. Hendriks (Wageningen University). Moreover, we thank the Scientific Committee for their contributions: Prof. Dr R. Zijlstra, Dr J. Smillie, Canada; Dr E. Prestlökkken, Norway and Dr G. Bosch, Dr J. Schrama, Dr A.F.B. van der Poel, The Netherlands.

We have had a very nice congress with very interesting presentations and posters. It was good to observe the positive interaction between speakers and participants resulting in a great ambiance of the meeting. Some 120 participants were present from 26 different countries. After the congress a Workshop was organized about the emerging technological research and education in the near future; a summary of the results of this Workshop will also be published as a short communication in the Journal 'Animal Feed Science & Technology'.

If you want to experience the ambiance of the 1st International Feed Technology Congress in Cologne, please listen to Leo den Hartog and visit [youtube.com/watch?v=TJLhDF3Ocao](https://www.youtube.com/watch?v=TJLhDF3Ocao)

We sincerely hope that you will meet us at the satellite program of the International Feed Technology Congress, on March 24, 2020 in Bangkok. The 2nd International Feed Technology Congress will be organized during the VICTAM/VIV exhibition in Bangkok in 2022.

VICTAM International 2019

PETFOOD FORUM EUROPE 2019

**Featured insights on novel nutritional concepts,
ingredients and more**



Europe is still one of the strongest regions in the world for pet food. In 2017, the European pet food sector delivered €20.5 billion (US\$23.5 billion) in turnover, an increase of €1 billion (US\$1.14 billion) on the previous year, according to FEDIAF. Petfood Forum Europe 2019 will highlight this strength and growth.

Petfood Forum Europe was held June 13, 2019 in Cologne, Germany, during Victam International 2019. The program featured pet food experts presenting novel nutritional concepts and ingredients, plus a focus on brand loyalty, direct-to-consumer sales, social media and more.

Topics for Petfood Forum Europe included why pet food brand loyalty is dead and how to revive it; using a direct-to-consumer model to increase pet food sales, as well as to collect unique, inexpensive consumer and pet data for scientific study; sustainability of pet food packaging and omega-3 fatty acid ingredients;

microencapsulated ingredients for better process control, plant-based ingredients to limit development of pets' age-related disorders and fish proteins for pet health benefits; how to build a pet food brand and tribe of loyal customers using social media; and a look back at the effects of a sweeping EU pet food labeling regulation since it was enacted 10 years ago.

The conference also included several networking opportunities with pet food professionals from throughout Europe, as well as small exhibits from leading industry suppliers.

Petfood Forum Europe 2019 was co-located with VICTAM International 2019 at the Koelnmesse in Cologne. VICTAM International took place June 12-14, 2019.



The benchmark in grinding

VICTAM and Animal Health and Nutrition Asia 2020

The total animal feed and health event by Victam and VIV

The exhibition and conferences will be organised from March 24 – 26, 2020 in halls 100-102 at the Bangkok International Trade & Exhibition Centre (BITEC) in Bangkok, Thailand.

Co-located is **GRAPAS Asia 2020**, the event for the grain, rice and flour milling industries.

The two shows will keep their own focus: VICTAM ASIA is firmly established as the event dedicated to the animal feed processing industry within Asia. VIV animal health and nutrition Asia addresses fast-moving sectors such as feed ingredients & additives, pharmaceuticals and pharmaceutical ingredients, genetics and more.

EXHIBITOR PROFILE:

- ❖ Ancillary equipment
- ❖ Automation
- ❖ Bio-energy & biomass pelleting technology
- ❖ Feed additives
- ❖ Feed Ingredients
- ❖ Feed production technology
- ❖ Formulation programs
- ❖ Genetics
- ❖ High-tech animal health technology
- ❖ Laboratory equipment

- ❖ Packaging
- ❖ Pharmaceutical ingredients
- ❖ Pharmaceutical products
- ❖ Quality control
- ❖ Veterinary and laboratory equipment & supplies
- ❖ Other

VISITORS PROFILE:

- ❖ CEOs
- ❖ Feed formulators
- ❖ Mill managers
- ❖ Nutritionists
- ❖ Operations directors
- ❖ Transportation managers
- ❖ Veterinarians

INDUSTRIES:

- ❖ Animal feed compounders
- ❖ Aquafeed producers
- ❖ Associations, government

- ❖ Biomass pelleting manufacturers
- ❖ Breeders
- ❖ Co-operatives
- ❖ Feed Mills
- ❖ Fish farms
- ❖ Hatcheries
- ❖ Integrators
- ❖ Large scale farmers
- ❖ Large scale integrations
- ❖ Petfood manufacturers
- ❖ Traders (distributors, resellers)
- ❖ Veterinary laboratories

IF YOU WOULD LIKE TO EXHIBIT AT VICTAM AND ANIMAL HEALTH AND NUTRITION ASIA 2020, WE ENCOURAGE YOU TO CONTACT OUR SALES TEAM:

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victam-asia.com

VNU Exhibitions
Zhenja Antochin
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zhenja.antochin@vnuexhibitions.com
vivhealthandnutrition.nl

You can also contact your local representative.



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countries



100+
media



CONFERENCE & SEMINAR PROGRAM

VICTAM and Animal Health and Nutrition Asia 2020 offers a series of high quality industry conferences. Below you will find the preliminary schedule:

Monday, 23-3-2020

Venue: Hotel in Bangkok

- ✓ Extrusion Conference
- ✓ Aquatic Asia Conference
- ✓ Pig, Poultry & Dairy Focus Asia 2020

Tuesday, 24-3-2020

Venue: BITEC and Hotel in Bangkok

- ✓ Aquafeed Horizons Asia 2020
- ✓ Feed Strategy Seminar
- ✓ Future outlook
- ✓ Future investments
- ✓ GRAPAS & Global Milling ASIA 2020
- ✓ IFTC Asia 2020
- ✓ Insect protein
- ✓ Lab diagnostics proactive
- ✓ Pig, Poultry & Dairy Focus Asia 2020
- ✓ Technical seminars

Wednesday, 25-3-2020

Venue: BITEC

- ✓ AFOB
- ✓ GMP+ Feed Safety Seminar
- ✓ Grain Storage Seminar
- ✓ Petfood Forum Asia 2020
- ✓ Product registration dossier
- ✓ WPSA
- ✓ Technical seminars

Thursday 26-3-2020

Venue: BITEC

- ✓ WPSA
- ✓ Technical seminars

Schedule and times are tentative and subject to change.

KEY PARTNERS:

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Global feed industry looks to biosecurity, feed additives to mitigate African swine fever risks

2020 Feed Strategy Conference focuses on feed additives solutions for the treatment and prevention of swine diseases

- By Jackie Roembke, editor *Feed Strategy magazine*

Global animal protein producers and other industry stakeholders are closely watching the African swine fever (ASF) crisis and examining the developments surrounding its spread. In hopes of containing the virus, researchers are exploring all potential pathways for ASF transmission.

Recent studies have identified animal feed as a potential vector. While research is on-going, feed industry stakeholders entertain the connection, but urge that any measures put into place to mitigate this risk involve scientifically based prevention and biosecurity measures.

Until definitive feed-related recommendations are issued, biosecurity guidelines have been updated to help prevent the virus' introduction into the feed manufacturing process. Facilities should create onsite biosecurity programs, more thoroughly evaluate and verify their suppliers, work with shippers, and train on and communicate best practices to all facility personnel and visitors.

Here are several additional feed mill best practices for reducing ASF contamination risks:

1. Hygiene enforcement

Hygiene control measures are critical to all biosecurity protocols. Enforcing diligent vehicle hygiene (spraying trucks) and monitoring the movement of feed mill employees who visit farms is critical. For example, drivers should wear and discard all disposable clothing at the farm.

"Feed mills should work closely with their customers to ensure appropriate procedures are identified and followed during feed delivery," says David Fairfield, senior vice president for feed services, National Grain & Feed Association (NGFA).

He also suggests limiting personnel access to specified areas within the feed mill to reduce the potential transmission of biological hazards.

2. Receiving and ingredient specifications

A key component of an effective feed mill biosecurity plan is prevention of the entry of hazards during the receiving of ingredients.

"Typically, the first step for hazard prevention during receiving involves a supplier approval process that includes development and communication of appropriate ingredient specifications," Fairfield explains. "In addition, the supplier approval program should have methods to verify that the supplier has effective programs in place to ensure ingredients meet necessary specifications." AFIA's suggests feed manufacturers only source from biosecure facilities.

The Swine Health Information Center (SHIC) produced a "decision tree" to help pork producers determine if their feed suppliers to minimize risk from feed ingredients.

3. Foreign supplier verification, ingredient holding times

AFIA president and CEO Joel Newman suggests the feed industry should "take the verification of foreign suppliers one step further than dictated by FSMA and consider foreign suppliers' biosecurity programs."

"We must continue working with suppliers to provide assurance of where ingredients are sourced and confidence in the biosecurity practices being used at our ingredient and feed processing facilities," Newman says

The risk assessment of globally sourced ingredients should take into account the point of origin, distribution methods and associated supply-chain entities, Fairfield notes. Animal viruses have been shown to survive transboundary shipments in certain feed ingredients after inoculation.

SHIC suggests holding times based on the calculated half-life of viruses for feed ingredients sourced high ASF-risk countries. Longer holding times are believed to reduce viral loads in feed ingredients.

Feed additive solutions

Beyond prevention via biosecurity, Dr. Scott Dee, Pipestone Veterinary Services' director of research and his team have been

examining feed additive solutions with acidification and antimicrobial properties to mitigate and combat the effects of ASF. Studying several feed additives mitigants on biosafety level 2 (BSL-2) viruses, such as porcine reproductive and respiratory syndrome (PRRS), Porcine epidemic diarrhea virus (PEDV) and Senecavirus A, versus a positive control of untreated feed, Dee has found very promising results.

"The mitigants have been very effective in reducing all three of these viruses in the feed — reducing clinical signs and keeping good performance in the face of disease challenges," he says, noting that research cannot be conducted on ASF directly because it is classified as a BSL-3 pathogen.

While there are differences in price and application across the products in the study, all appear to be effective, he says.

"Our goal was to create a list of mitigants tested under equal conditions to show if they are effective or not," Dee reports. "Then, the producer can pick and choose which program works for them."



At VICTAM Asia 2020, WATT Global Media and Feed Strategy magazine will host a half-day conference addressing the African swine fever crisis in Asia. The event will provide an overview of the current state of the disease and examine feed additive solutions found to successfully mitigate and treat pig diseases.

The program will include the review of leading-edge research, selected and vetted via the call for papers process. The full program will be available in late 2019.



More information

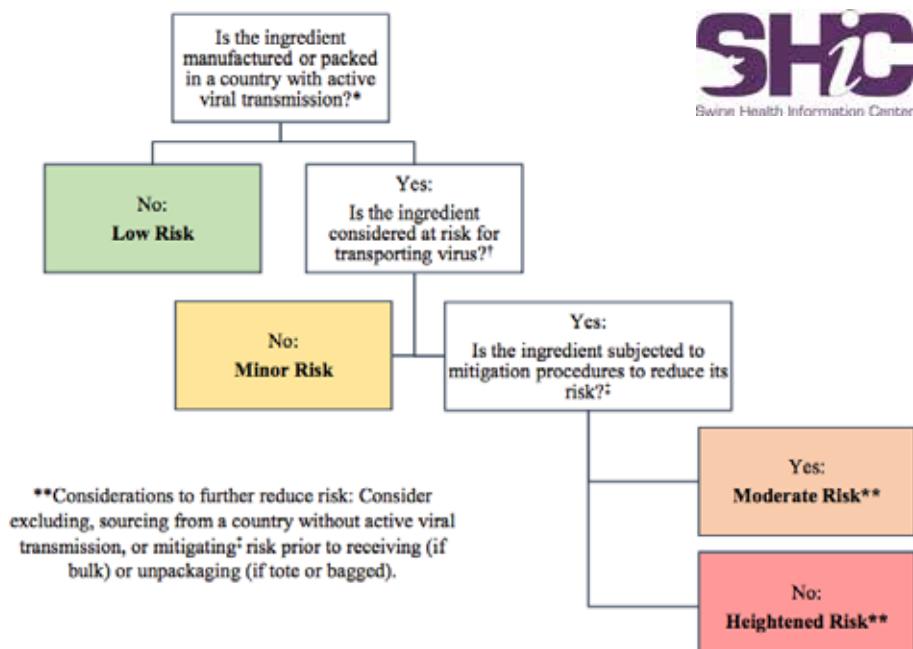
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Swine Health Information Center

Decision Tree Matrix to Minimize Viral Transmission Risk from Feed Ingredients

The Swine Health Information Center (SHIC)





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The evolving shift to green

- By Suzi Dominy, publisher and executive editor of Aquafeed.com

In the last issue of Showtime, I wrote about the rapid development of novel alternatives to marine-derived proteins and oils: a trend that shows no sign of slowing down. As these algae, single cell protein and insect-based feeds start to ramp up production and enter mainstream aquafeed formulations, they are creating new challenges for producers such as handling, physical and nutritional profiling, challenges that are rapidly finding answers in this responsive and sophisticated sector of the feed industry.

The main roadblock to wider adoption, however, has been volume. Consequently, we are now seeing the largest aquafeed companies joining forces with these novel ingredient producers to lock in supply. An example of this is Cargill which has entered into a strategic partnership with Innovafeed to jointly market fish feed that includes insect protein. Over the past three years Innovafeed has led multiple trials demonstrating



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From ingredient, equipment and service suppliers to end market buyers, Aquafeed.com has been bringing together the aquafeed value chain since 1998.



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that its insect protein can be an effective alternative to fishmeal used in salmon or shrimp feed with equal or improved performance. Meanwhile, Protix recently opened the world's largest insect farm in the Netherlands. The occasion was marked by a deal with Skretting (the aquaculture division of Nutreco) that could see up to 5.5 million salmon servings per year brought to market with insect meal incorporated into the feed.

Skretting is known to be exploring numerous other alternative and locally produced ingredients, such as in South America, where they have created a partnership with Chilean Agricultural Research Institute (INIA) to generate new plant-based salmon diets high in proteins and fatty acids. Juan Gutiérrez, Skretting ARC Manager, said they see interesting opportunities in starches, protein concentrates and vegetable oils.

“Sustainability”, whether viewed cynically as a marketing tool, or as the savior of the planet, is more than a trend; it is shaping aquaculture, and aquafeed producers are paying attention. Danish aquafeed producer, BioMar, for example, has just released a consumer facing digital tool that traces the sustainability practices of aquaculture from farm-gate right back to the environmental impact of all raw materials. Seafood shoppers can now scan a QR code through their smartphone and have access to an array of information including sustainability impact, nutritional profile, seafood origins, certifications and feed ingredients.

Fishmeal and oil are not “bad ingredients” in aquaculture, of course. Afterall, fish eat fish. Fish provide optimal nutrition for fish. Fisheries are a finite resource, however, and at the rate aquaculture is growing, it will soon create a greater demand than can be fulfilled by fishmeal alone. Better utilization of by-catch and by-product fishmeal is an essential step in extending and enhancing the sustainability of the resource; one of the largest aquafeed producers in Asia, Charoen Pokphand Foods Public Company Limited (CP Foods), is taking the lead in the region. CP Vietnam Corporation (CPV), an investment arm of CP Foods, has announced that both by-catch and by-product fishmeal used in the company’s operation will be certified by the International Fishmeal and Oil Organisation’s Global Standard for Responsible Supply (IFFO RS) or IFFO RS Improver Program (IFFO RS IP) by 2022, to ensure consumers across the world that its products are made from responsible (and slavery-free) sources. Dr. Sujint Thammasart, DVM, Chief Operating Officer, Aquaculture Business of CP Foods, said 100% of by-product fishmeal supplies to CPV’s aquaculture business is now certified IFFO RS. Some of the fishmeal from Vietnam is also shipped to Thailand.

For by-catch fishmeal, CP Foods and CPV are currently taking part in pilot programs of IFFO RS IP to develop a credible criteria for multi species fisheries in Thailand and Vietnam. Moreover, CPV is engaging with local fishmeal producers to encourage them to join IFFO RS IP. The improved program aims at guiding the suppliers with high potential to apply IFFO RS standard toward sustainable practices.

In order to aid them through the application, CPV has encouraged its fishmeal suppliers to apply for sustainable sourcing policy and guidelines for business partners. CPV is also working on a digital traceability system in their shrimp business, which will enable the company to track its fishmeal supply back to the fishing boat.

In Thailand, CP Foods reported 100% of fishmeal used in Thailand’s operations are sourced from by-product fishmeal which is traceable and sourced from IFFO RS or the IFFO RS IP certified facilities and in accordance with CP Foods’ Fishmeal Sourcing Restrictions. Additionally, the by-product fishmeal must not include species at risk from extinction as defined by the World Conservation Union: IUCN Red List of Threatened Species and be traceable by third party.

Not just fishmeal replacement

In aquaculture, sustainability has come to be synonymous with fishmeal and oil replacement in the eyes of many, but aquaculture sustainability is so much more. The Aquaculture Stewardship Council (ASC)’s Steering Committee, a multi-stakeholder group consisting of representatives from the aquafeed, feed ingredient and farm industries, NGOs and retail, is nearing finalization of its Feed Standard. It will provide an additional mechanism for producers and retailers eager to minimize and mitigate environmental and social impacts throughout their supply chain, and “sustainability” won’t just refer to fisheries. “The sustainability discussion of feed ingredients has traditionally focused on marine ingredients, and although there environmental and social concerns that need to be addressed, aquafeed is composed of far more than just marine ingredients,” said Michiel Fransen, Head of Standards and Science for ASC, and a speaker at Aquafeed Horizons 2020 Conference in Bangkok next year. “The range of environmental and social concerns related to crop-derived ingredients (soy, wheat, corn, rice, canola, etc.) are equal if not more significant in terms of their diversity and scale when compared to marine ingredients. The complexity of crop supply chains further exacerbates addressing their sustainability issues. However, the aquaculture industry increasingly recognizes that feed sustainability must be addressed both on land as well as at sea and ASC’s feed standard uniquely does that.”

The standard addresses several initial priorities related to crop-derived ingredients: transparency on origin and requirements to source from production areas that are at low-risk of illegal deforestation. It also requires feed mills to work towards deforestation-free supply chains over time. The ASC says the Feed Standard addresses habitat loss, over-harvesting, biodiversity impacts, pollution, poor labor conditions, human rights abuses and lack of community consultation, as well as other key sustainability indicators such as greenhouse gas emissions, water and energy consumption.

AQUAFEED CONFERENCE AT



VICTAM and Animal Health and Nutrition Asia 2020

Aquafeed.com will once again hold its popular international conference "Aquafeed Horizons" in Bangkok, Thailand as part of the combined Victam Asia and VIV Health & Nutrition Asia Trade Fair and Forum. The theme of the 13th in the series of international conferences will be Current Trends and Future Developments in Aquaculture Feeds, focusing on what aquafeed producers should know and practical steps they can take to ensure they are not left behind as the industry moves forward. Led by Dr. Albert Tacon, an expert line up of international speakers will address alternative ingredients and their practical use, advances in functional ingredients, changing regulations and market requirements and advances in feed technology and implications for aquafeed production.



For more information please contact Suzi Dominy at
info@aquafeed.com



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MARCH 24 – 26, 2020
BITEC, BANGKOK, THAILAND

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- ✓ Business matchmaking opportunities
- ✓ Access to the industry exhibition

OFFICIAL SHOW WEBSITE

- ✓ grapas-asia.com

Registration: end 2019

WHAT'S ON SHOW:

- ✓ Rice milling and sorting technology
- ✓ Flour milling technology
- ✓ Flakers, extruders
- ✓ Grain processing systems
- ✓ Additives

RELATED CONFERENCES:

- ✓ GRAPAS & Global Milling Conference Asia 2020
- ✓ Grain Storage Seminar
- Technical Seminars by exhibitors

SUPPORTED BY:

- ✓ Thai Rice Millers Association
- ✓ Ministry of Industry
- ✓ The Thai Chamber of Commerce
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GRAPAS 2020: Innovation for the future of milling



At VICTAM and Animal Health and Nutrition Asia, Milling and Grain magazine are once again hosting the GRAPAS Conference and Innovations Awards, a one-day celebration of milling technological innovations.

Taking place on March 24th, 2020, the conference will feature 10-minute presentations from each applicant in the GRAPAS Innovations Awards, discussing what makes their products so special and what they bring to the flour, pasta and rice processing industry. At the end of the conference, Milling and Grain will also announce the winner(s) of the awards and hand out the coveted GRAPAS trophy!

Roger Gilbert, Publisher of Milling and Grain magazine says, "the Innovations Awards aim to celebrate all that is great about this wonderful industry we work in. There have been some incredible innovations across the industry during the past 12 months and we look forward to discovering more about them at the GRAPAS Conference". The GRAPAS Conference and Innovations Awards 2019 were a resounding success at VICTAM Cologne, with three winners crowned:

INNOVATION Petkus' OptoSelector 901t- The Petkus OptoSelector 901t is their latest innovation in sorting technology, consisting of a combination of RGB and unique light transmission technology to ensure the most efficient sorting available. Developed in January 2018, the OptoSelector 901t works through a special lighting system, exact focussing and perfect homogenisation of light.

INNOVATION Bühler's LumoVision- Bühler's LumoVision technology reduces the risk of aflatoxin contamination, whilst also reducing food waste and business risk. The solution effectively targets contaminated grain and has proven reductions of up to 90 percent, with a yield loss of less than five percent.

INNOVATION SELIS' DAPS system- Through using the DAPS system, cylinders in roller mills are ground evenly. Straight grounded cylinders will also not press each other evenly after thermos expansion occurs. This benefits users as it minimises wear on rolls and ensures your product lasts significantly longer.

The runner-up was Balaguer Rolls' Optical Fluting Test 2.0. This second generation of Balaguer Rolls' Optical Fluting Test is a refined version of their previous 2016 model, launched in January 2019 with a host of new features and improvements

All 15 shortlisted applicants, from companies such as Eye-Grain, Dinnissen, Brabender and more also delivered brilliant presentations that showcased what impressive innovations companies continue to bring to the forefront of the milling sector.

Previous winners have also included Eye-Grain Aps, Alapala, CPM Europe, 4B Braime Components and many more companies with brilliant innovations.

Applications for the GRAPAS Innovations Awards 2020 are now open! Provided that your product directly assists the flour, rice and pasta-processing industries and became available on the market no earlier than 2018, your product is eligible for application into the awards.



Apply for the awards

Please contact Milling and Grain's Features Editor Rebecca Sherratt (rebeccas@perendale.co.uk) who will provide applicants with an application form with some questions about your product. Alternatively, if you are interested in speaking at the GRAPAS Conference or sponsoring the event, please also get in contact with Rebecca Sherratt.

Milling and Grain's Grain Storage and Conservation Seminar

Milling and Grain magazine will also be hosting their second rendition of the Grain Storage and Conservation Seminar at VICTAM and Animal Health and Nutrition Asia 2020 on March 25th. Following on from the success of the first rendition of the seminar at VICTAM Cologne in 2019, we will once again take a delve into the intricacies of grain storage and preservation with a line-up of industry experts providing their best advice on how to best manage storing your resources. This year the seminar featured esteemed speakers from FrigorTec, Eye-Grain, SCAFCO and Cimbria who discussed a variety of topics surrounding silo management, grain drying and much more. For companies interested in speaking at the Grain Storage and Conservation Seminar, please email Rebecca Sherratt (rebecas@perendale.co.uk) for further information.

Build my Feed Mill

Co-organised with both VICTAM and VIV, Milling and Grain magazine are hosting the Build my Feed Mill Conference at VICTAM and Animal Health and Nutrition Asia on March 25th. Build My Feed Mill is a concept introduced by Milling and Grain and VIV Worldwide in 2017 under the CropTech-FeedTech brand. The concept aims to raise awareness that there are too few feedmills in low-economic and developing countries that are fit for purpose. The technological debt means that there is little chance of some countries reaching the international average for feed production of 133.6kg/per capita. During the Build my Feed Mill Conference, 10-12 companies are given the chance to present 10-minute presentations about how their solutions assist feed mills in their everyday processes and prac-

tices. Taking attendees through every process within a feed mill, Build my Feed Mill enables attendees to discover the latest innovations that help make your feed mill truly innovative, efficient and profitable.

The following categories are available for companies to present:

- ✓ Intake and Conveying
- ✓ Storage Solutions
- ✓ Weighing Systems
- ✓ Dosing systems
- ✓ Expanders
- ✓ Pelleting
- ✓ Grinding
- ✓ Extruders
- ✓ Drying and Cooling
- ✓ Automation/ Feed Formulation



More information

Companies interested in presenting are welcome to email Rebecca Sherratt at rebeccas@perendale.co.uk

Increase nutritional value with our innovative split-grinding solution.



**Optimized feed conversion rate.
Improved feed quality.
Higher line-capacity.**



Split-grinding: Minimum investment. Maximum results.

Pre-grinding has a proven advantage over post-grinding when considering the digestive properties of the nutrients, but a pre-grinding set-up requires a high investment. Our newest split-grinding process combines the best of both worlds. So instead of making one grinding batch with all the raw materials, or invest in a pre-grinding set-up, split-grinding enables you to grind separate sub-batches of different raw materials, which enhances the nutritional value, increases the quality of the feed, all at a low investment.

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VanAarsen

The vital link to your feed chain

Petfood Forum Asia 2020 seeks pet food experts as speakers

A call for papers is open through 30 Sep, 2019.

The organizers of Petfood Forum Asia are seeking pet food market and industry experts as speakers for the next conference on 25 March, 2020, in Bangkok. Organizers have announced a call for abstracts for non-commercial oral presentations, due 30 September, 2019.

What to submit

Potential speakers are invited to submit noncommercial abstracts on topics including:

- ✓ New research on companion animal nutrition;
- ✓ Novel ingredients and their potential applications in pet food or treat formulations;
- ✓ Data, trends and predictions for the pet food market, focusing on Asia and including opportunities for innovation;
- ✓ New pet retailing information pertinent to the selling or distribution of pet food, including via e-commerce, in Asia;
- ✓ New information or ideas for marketing pet food, including via social media;
- ✓ New information, techniques or processes for product development in pet food;
- ✓ Update on regulatory information relevant to pet food in Asian markets or export markets;
- ✓ Research, technology or processes for pet food production;

- ✓ New research, technology or other information on pet food packaging;
- ✓ New, specific information on one focused aspect of pet food safety (no general overviews of regulations or pet food safety programs).

Relevance of topic and the presence of new or innovative information, concepts or research are key to a positive evaluation, as is knowledge of or experience in the topic area. No abstract will be considered if it seems commercial or if it has been published or presented prior to Petfood Forum Asia 2020. Abstracts similar in title or content to previously presented material should include significant new information.



How to submit

For more information and a link to the Petfood Forum Asia 2020 submission site, please visit petfoodforumevents.com/asia/ and click on the "Call for Papers" tab at the top. On the submission site, follow the instructions to create a new account and complete the submission forms, using the guidelines on the log-in page and the forms.

Abstracts must be received no later than 30 November. After this deadline, the abstract submission system will no longer accept submissions. Any requests for late submissions will be evaluated on a case-by-case basis.

Please do not submit an abstract if you are not sure you will be able to attend Petfood Forum Asia 2020 on 25 March in Bangkok.



Speed up your production process with the Hot Start Steam Mixer

**Very short start-up time.
Prevents product loss.
Reduced contamination risk.**



WINNER
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Animal Feed Technology & Nutrition 2019


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Save time and money in your feed conditioning process and optimize your feed quality with the Hot Start Steam Mixer.

The Hot Start Steam Mixer is a Van Aarsen innovation that helps improve your conditioning process by ensuring a guaranteed and accurate heat treatment. Combined with its extremely short start-up time, the Hot Start Steam Mixer prevents wastage at batch start-up, shortens the batch time and speeds up your production process.

www.aarsen.com/machines/conditioners

Bühler LumoVision:

Saving lives and improving livelihoods with revolutionary data-driven grain sorting technology.



With LumoVision, Bühler has developed a breakthrough in sorting technology to identify and remove cancer-causing, aflatoxin-infected grains. It does this more accurately and at greater speed than any previous solution. Developed in partnership with Microsoft, the launch of LumoVision™ is a significant advance for the maize processing industry in its fight against toxic metabolites produced by fungal molds called mycotoxins, the most poisonous of which is aflatoxin.

The innovation can eliminate up to 90% of contaminated maize. "Advances in digital technology, together with our sorting and food safety expertise, make this an unrivalled system that contributes to solving a major global food safety and security challenge," says Matt Kelly, Managing Director of Digital Technologies at Bühler.

Maize is a vital, staple food crop in many regions of the world and a major component in animal feed, but it is particularly prone to aflatoxin contamination. Aflatoxin is classified as a primary human carcinogen by the International Agency for Research on Cancer. Approximately 500 million people worldwide are at risk of exposure to it and it is estimated to cause up to 155,000 cases of liver cancer every year and contribute to stunting the growth of millions of children.

Until now sorting maize for aflatoxin reduction has proved difficult and imprecise, relying on identifying indirect indications of contamination. Testing for contamination based on sampling is inconclusive and time-consuming as contamination occurs in hotspots. Just two contaminated kernels in 10,000 are sufficient to make a lot unfit for purpose. Alongside health risks, the economic impact on farmers and food processors is significant.

Unprecedented accuracy

LumoVision is the first optical sorting technology able to identify aflatoxin based on direct indicators of contamination, while

simultaneously using real-time, cloud-based data to monitor and analyze contamination risk.

It works by analyzing the color each kernel fluoresces as it passes under powerful UV lighting in the sorter. It is known that contaminated kernels fluoresce a specific bright green color. LumoVision's proprietary, highly sensitive cameras detect precisely this color of fluorescence. Within milliseconds of detection, air nozzles deploy to blow contaminated kernels out of the product stream. The machine processes up to 15 tons of product an hour, eliminating up to 90% of contamination – a significant improvement on current solutions. A cloud-based solution using infrastructure provided by Microsoft is a key enabler to reducing overall yield loss. Combining data from the cameras with data stored in the cloud allows a realtime analysis of the risk of contamination to be performed at the edge. When the risk is minimal, sorting can be paused while the machine continues to monitor.

If the risk rises, sorting automatically restarts. LumoVision, coupled with the cloud service, reduces yield loss to below 5%, compared with between 5% and up to 25% for other current solutions.



More information

Please contact Lumovision.support@buhlergroup.com

Hot Start Steam Mixer:

Speed up your production process with the Van Aarsen. Winner of the innovation award Animal Feed & Nutrition at Victam International 2019

The Hot Start Steam Mixer is a Van Aarsen innovation that helps improve your conditioning process by ensuring a guaranteed and accurate heat treatment. All the product exiting the Hot Start Steam Mixer has reached the set temperature within $\pm 3^\circ\text{C}$ tolerance. Combined with its extremely short start-up time, the Hot Start Steam Mixer prevents wastage at batch start-up, shortens the batch time, reduces contamination risks and speeds up your production process.

Optimizing feed safety and minimizing spoilage

The Hot Start Steam Mixer helps to optimize the feed safety while minimizing spoilage. Safe feed forms the basis for safe food. The Hot Start Steam Mixer helps to optimize the production of safe feed by preventing contamination of further processes by untreated product. As all product exiting the Hot Start Steam Mixer has reached the required temperature, wastage at batch start-up is prevented. Saving not only money. Also from a sustainable perspective it has become ever more important to make sure spoilage of raw materials is minimized.

Save time and money in your feed conditioning process

The hot start steam mixer helps to optimize the conditioning process during feed manufacturing. The first step in the process of conditioning is heat treatment of the meal by the addition of steam in the steam mixer. Steam treatment is necessary to optimize the pelleting process in power consumption and pellet quality. By injecting dry steam, starch gelatinization is induced. The uniquely short batch start-up time of the Hot Start Steam Mixer helps feed millers to maximize capacity while ensuring the desired feed quality, thus keeping feed costs low.

High steam quality guaranteed

Next to the Hot Start Steam Mixer, Van Aarsen has also improved its steam systems. High steam quality is of great importance for quality feed production. Steam quality directly affects the quality of the conditioning process.

The new Van Aarsen steam reducing group is designed to create the right quality of dry, saturated steam. This steam is free from condensate, which helps to control the temperature and the amount of moisture in the conditioner. This ensures a consistent product quality. The removal of excess condensate also ensures a long lifetime of all the components in the steam system by eliminating the risk of water hammer.

Fully in control with a worry-free steam addition

Van Aarsen steam systems ensure high steam quality, accurate dosing and worry-free performance. Another important improvement is our steam dosing control, which controls the amount of steam that is added to the conditioner. Steam quantity is based on the temperature of the feed exiting the steam mixer and the specified target temperature. The Van Aarsen steam quantity control group comes with all the necessary components to ensure a trouble-free operation and removal of condensate. It accurately manages the output of steam and prevents possible damage to the nutritional value of feed components.

More information

Van Aarsen is developer, manufacturer and supplier of state of the art machines and complete feed mill solutions for the production of compound feed and premixes worldwide. Van Aarsen takes its vital role in the 'agro-feed' chain seriously. Its innovative machines and complete solutions for animal feed manufacturers have been designed and built to boost production and reduce operational costs by minimising energy consumption and maximising feed safety and ease of operation.



More information

www.aarsen.com/machines/conditioners/ or via e-mail at advice@aarsen.com.



Amandus Kahl

New Amandus Kahl Extruder family



Amandus Kahl, founded in 1876 and family-owned since generations, is a medium-sized German manufacturer of machinery and equipment for various industries such as feed, food, biomass and recycling. With more than 900 employees, a worldwide network of agencies, service technicians, subsidiaries and sales offices, we provide solutions and support to our customers all around the globe.

After 20 years of experience in extrusion systems, Amandus Kahl has developed a completely new designed Extruder in order to meet the increasing requirements of the fast-growing fish feed and pet food markets. The new extrusion product family comes with four different machine sizes covering the whole range of performance from lab-scale up to 10 t/h industrial large-scale applications. All machines are available as machine-only or as turnkey extrusion lines comprising all required process steps like milling and mixing, steam conditioning, extrusion, drying, coating, cooling and packing.

The new Extruder comes with the proven Amandus Kahl stop bolt technology for perfect mixing and venting in the first barrel section. Dedicated process zones for compaction, cooking and pumping assure high flexibility and various adjustment options. Exchangeable screw elements ensure perfect adaption to changing formulations and quality parameters.

These features are complemented by very effective fine-control measures like screw speed adjustment, steam/water addition to the extruder barrel and individually controllable heating/cooling jackets - all adjustable during operation for direct product quality response. The combination of individually adjustable screw elements and the described fine-control measures enable us to satisfy our customers' requirements in the vast majority of cases. Complex and expensive additional equipment to influence expansion behavior is not required, allowing our customers to save investment as well as operational costs.

During the design process, the main focus of our engineers was to create an operator-friendly machine. This is achieved by a double-hinge head connection, ensuring fast die changes and fast knife replacement. The frame-mounted touch-screen based operator panel complements the user-friendly design and gives access to all relevant operational data, settings and options during start up and operation.

Extensive prototype testing in our test center in Reinbek near Hamburg showed very good results in terms of product quality, capacity and process stability for the production of sinking as well as floating fish feed. The first series machines are sold to the upcoming countries in northern Africa, commissioning is expected to be finished in early 2020.

- ✓ Newly designed base frame for easy machine alignment and integrated peripherals
- ✓ Good accessibility and therefore easy cleaning of outlet, die and product distribution system
- ✓ Fast knife and die change
- ✓ Knife-adjustment during operation
- ✓ Flexible adaption of linings, cooking and pumping elements
- ✓ Four separately controllable heating / cooling jackets
- ✓ Throughput depending on pellet diameter and feed formula:
- ✓ Sinking fish feed up to 10 t/h
- ✓ Floating fish feed up to 8 t/h
- ✓ Petfood up to 8 t/h

KAHL fish feed plants are equipped with the latest process technology, the core of which is the extrusion system with the extruder OEE and the process control system E5EP. In the production process, the raw materials undergo the process steps of weighing, fine grinding, mixing, extrusion, drying, vacuum coating, cooling and packaging.



More information

Visit: www.akahl.de

Andritz:

Horizontal Batch Paddle Mixers - fast, efficient and self-cleaning

Batch mixers play a vital role in any feed plant regardless of the type of feed produced. The batch mixer typically blends ground cereal ingredients with carefully selected micro-ingredients such as minerals, vitamins, trace elements and occasionally, pharmaceuticals. These ingredients may come from several individual batching systems and require thorough mixing prior to any liquid addition. Insufficient integration of these compounds may ultimately lead to poor animal performance, size variation or may even have lethal consequences.

Mode of Operation

The horizontal batch mixer works by applying both an axillary and radial movement of materials inside the mixer. Both movements take place at the same time as all paddles move the material towards the center of the mixer. Ingredients are only considered fully incorporated when trace materials have moved through the entire length of the mixer, which can take considerable time. Although a high-quality mixer can handle this task, it is still a good idea to add micro-ingredients to the center of the pre-bin and pre-mix medical ingredients with a carrier and add it directly to the mixer, by-passing the pre-bin.

Mixing Quality

For testing purposes, a single external tracer is introduced at one end of the mixer. Mixing is only considered complete when the tracer has moved to the opposite end of the mixer and all ingredients and tracers are equally dispersed over the entire batch. Sampling is repeated on mixer surge discharge conveyor during the discharge period, and all extracted samples must contain the same quantity of tracer. Only then it may be assumed that the mix is complete and all samples will have the same ratio of batched ingredients.

The deviation from the mean observed value is expressed as the coefficient of variance ($\text{stddev} / \text{mean} = CV$). The standard industry requirement was $CV < 10\%$ on a 1:100.000 ratio (10g/t). However, higher requirements are often encountered with $CV < 5\%$. A good tracer should be an inexpensive sub-straight that is harmless and allows for efficient yet precise methods of analysis. The tracer should not be an ingredient already present within the feed itself as not to interfere with the mean value, falsely reducing the CV-value and giving an inaccurate representation of the mixing capability.

Mixing Line Design

The mixing line is assembled with a pre bin above the mixer, which buffers ingredients from the different batching systems and grinders. Mixing lines should be designed with large, sturdy, and most importantly, a tight inlet and outlet. This tight inlet and outlet become even more critical if the mixer is part of a multi-species environment and feeds multiple process lines. The Andritz OptiMix offers a safety feature that ensures the inlet and outlet remain closed even during a complete power failure or loss of auxiliary supplies such as compressed air. The surge bin enables the mixer to discharge quickly, so it can quickly restart and begin processing the next batch. The surge



discharge conveyor feeds downstream process equipment such as pelleting lines.

Liquid Spraying

In the animal feed industry, liquid additions such as water, oil, fat, and liquid amino acids like lysine and methionine take place at the batch mixer. However, a mixer has a very limited capacity for moving liquids from one particle to another. Therefore, during the liquid spray period, the mixer adapts to expose the meal to the spray pattern from the nozzles.

Fat and oil have the effect of binding smaller particles together to form larger particles (agglomeration). Therefore, fat and oil should only be sprayed when the dry mixing period is complete. Water-based ingredients, however, do not have this effect and can be sprayed after the inlet gate has closed. Molasses, on the other hand, should not be added in batch mixers, as it creates extreme build-up in the dead zones and on exposed mixing aggregate. Spray nozzles should be carefully selected. Considerations should be made for factors such as batch size, inclusion rates, liquid density, and viscosity. As pressure needs to be relatively constant for the nozzle to operate correctly, the flow rate per nozzle needs to be constant. Consequently, different spraying times and different batch cycle times need to be accepted. Any lumps that have formed in the meal are effectively broken up in the preconditioner, and any after-run from large nozzles can be accounted for with a final wet mixing period. If batch mixers, equipped for liquid applications have dead zones, they pose a serious threat to hygiene since moist conditions are ideal for the growth of bacteria and molds. The ANDRITZ OptiMix batch mixer has a cylindrical trough with minimal dead zones and a counter-rotational mixing shaft to effectively eliminate build-up.

Conclusion

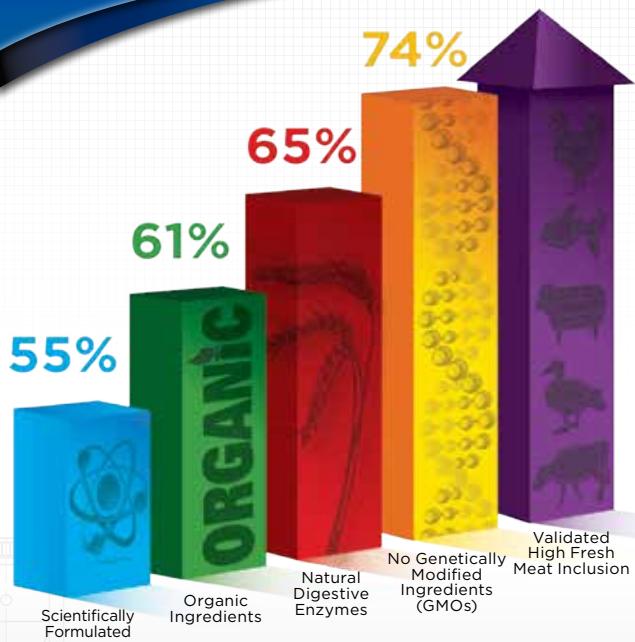
Typically the mixer reaches end-of-life when the market demand exceeds the mixer's capacities or when the trough is so thin that engineers cannot find any suitable place to start sheet metal work. If you find yourself in either of these situations or you are building a new feed line, we can help feed your business.



[More information](#)

visit www.andritz.com

We Are Witnessing the Humanization of Pet Food



*Data derived from a choice-based exercise in which participants are asked their preference for one concept over another. The percentages above represents the number of times that a concept displaying each claim was preferred over its paired concept out of the total number of concepts shown with that claim.

"As pet owners migrate toward pet foods with more humanization traits, manufacturers that can safely incorporate fresh meats and high proteins will have the strategic advantage. As an extrusion manufacturer with a Validated Kill Step, partnering with Extru-Tech will give you that advantage."

- Scott Krebs, Executive VP, COO

Contact Extru-Tech today at
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We're hiring!

CPM EUROPE IS LOOKING FOR YOU

CPM Europe (120 employees) is a leading provider of process and equipment solutions for the oil-seed, animal feed, recycling and bioenergy markets. CPM Europe designs, manufactures and sells both systems and individual production units. The extensive range of machinery including milling systems, conditioning systems and densification systems are used for processing bulk materials in the biomass industry, the production of animal feed, waste recycling and energy generation - all global industries that are growing strongly. To facilitate further growth and development of CPM Europe, we have several open job opportunities. We are looking for a:

- ✓ EQUIPMENT SALES MANAGER
- ✓ SALES ENGINEER
- ✓ ACCOUNT MANAGER PARTS SALES
- ✓ CONTROL SYSTEMS DEVELOPER

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For more information regarding CPM Europe (www.cpmeurope.nl) or these positions you can contact Fazia Hussainali, telephone number +31 (0)75 6512 695.

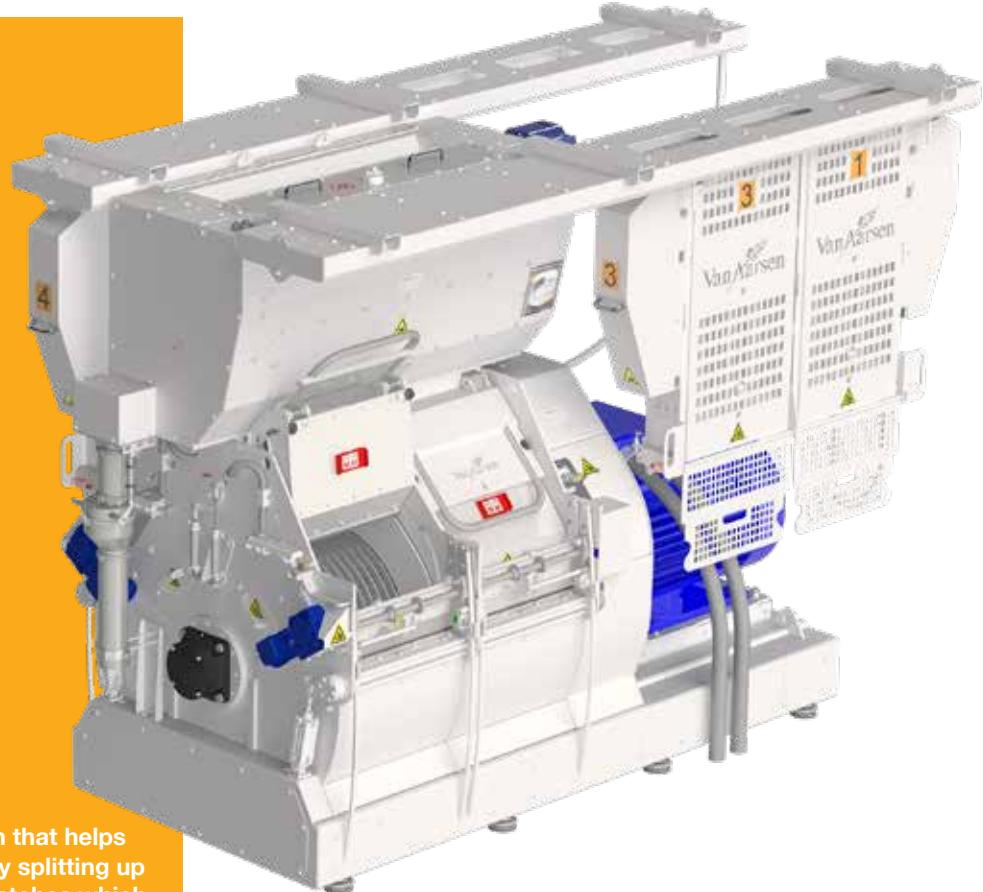
We are looking forward to receiving your resume and motivation via
fazia.hussainali@cpmeurope.nl



CPM EUROPE
Your Partner in Productivity

Van Aarsen:

Increase nutritional value with innovative split-grinding solution



Split-grinding is a new Van Aarsen solution that helps optimize the nutritional value of the feed by splitting up one batch of raw materials into two sub-batches which are separately dosed and grinded. Afterwards these sub-batches are collected and mixed together and from there processed together. Split-grinding is an alternative solution compared to pre-grinding or post-grinding.

The grinding process re-invented

The nutrients are ground to the size your animals need. And not just to one size which is common for a post-grinding batch process. In general protein-rich raw materials require a finer grind for an optimal digestion than carbohydrate-rich raw materials. In a post- grinding batch process they are all ground to the same fine particle size e.g. on a 3mm screen. In a split grinding process the raw materials are grouped into 2 sub batches based on their nutritional function and ground to a separate optimal particle size for each group e.g. respectively on a 2,5 and a 4,5 mm screen.

Minimum investment. Maximum result.

Grouping the raw materials into 2 sub batches based on their nutritional function and grinding them to a separate optimal particle size for each group e.g. respectively on a 2,5 and a 4,5 mm screen, has numerous benefits.

Compared to a post-grinding batch process this leads to:

- ✓ Optimization of the nutritional value of the feed
- ✓ Less energy consumption during the grinding process
- ✓ Higher linecapacity by an increased number of batches p/h

Compared to a pre-grinding set up this requires

- ✓ A lower investment, as no storage bins for pre-grinded raw materials are needed

Grinding, an essential process step

Split-grinding is a new way to set up the grinding process in a feed mill. Grinding the raw materials to the required structure is an essential operation which affects both pellet quality as well as the animals' digestibility. In addition a fine grind has a positive effect on starch gelatinization.

More information

Van Aarsen is developer, manufacturer and supplier of state of the art machines and complete feed mill solutions for the production of compound feed and premixes worldwide. Van Aarsen takes its vital role in the 'agro-feed' chain seriously. Its innovative machines and complete solutions for animal feed manufacturers have been designed and built to boost production and reduce operational costs by minimising energy consumption and maximising feed safety and ease of operation.



More information

www.aarsen.com/machines/hammer-mills/ or via e-mail at advice@aarsen.com.



ASIA 2020

Follow up & Review of the 1st International Feed Technology Congress

Wageningen University and the **Victam Foundation** will host a follow up & review congress of the very successful 1st International Feed Technology congress, held during VICTAM International 2019 in Cologne. The congress will be held on **March 24, 2020** during **VICTAM and Animal Health and Nutrition Asia** in Bangkok, Thailand.

<p>The IFTC in Bangkok will be a summary and update of the large conference in Cologne. You will have the opportunity to listen to presentations of some of the top speakers within the industry.</p> <p>More information For more information, please visit iftc.online or victam-asia.com.</p> <p>Registration and fees: You can register online from November 12, 2019 onward. The fee for this conference is \$95 (excl. VAT).</p> <p>Organisation: Victam Corporation, The Netherlands. T: +31 33 246 4404 E: info@iftc.online</p>	<p>Prof. Dr. Leo den Hartog Victam Foundation, The Netherlands</p> <p>Dr. Reza Abdollahi Senior Research Officer, Massey University, New Zealand</p> <p>Dr. Ir. Menno Thomas Zetadec, The Netherlands</p> <p>Dr. Hongyuan Cheng Feed Research Institute, Chinese Academy of Sciences, China</p> <p>Dr. Pairat Srichana Sr. Vice President CP Group, Thailand</p> <p>Dr. Thomas van der Poel Feed Research Institute, Wageningen University, The Netherlands</p> <p>Prof. Dr. Leo den Hartog Victam Foundation, The Netherlands</p>	<p>Opening</p> <p>The interactive effect of nutrient density and feed form on the growth performance and feed efficiency in broilers</p> <p>Fundamental factors in feed manufacturing: towards a unifying processing framework</p> <p>Interactions between fish feed recipe formulation and extrusion process variables in new feed recipe development.</p> <p>Feed technology and feed evaluation in animal production in Asia.</p> <p>Future directions of feed technology: Results of the 1st International Feed Technology Congress.</p> <p>Closing comments</p>
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Program is subject to change

Event:



Congress organised by:



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