

Showtime

Networking, business matchmaking and content focal point of FVG Select 2017

Global industry executives from the animal feed processing, grain processing, ingredients & additives, aquafeed, petfood and biomass pelleting industries traveled to Cologne in Germany on June 13 & 14, 2017. These executives had come to visit the very successful, first edition of FVG Select.

Almost 1,000 visitors came through the doors of the KoelnMesse exhibition center, set in the heart of the beautiful and historic city of Cologne. They had come from 59 countries and every continent was represented at the event.

As the name of the event implies, FVG Select, there were only a limited number of 55 exhibitors present at the industry expo. You can visit www.fvgselect.com to view the exhibitor list.

continued on page 3 >>

Inside your Autumn issue

- | | |
|----|-----------------------------|
| 3 | FVG Select summary |
| 5 | FVG Select post-show report |
| 9 | VICTAM Asia 2018 preview |
| 27 | Global feed survey |
| 36 | Nutrition and feed survey |
| 40 | Industry news |
| 44 | VICTAM International news |
| 45 | VICTAM Foundation news |





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The focus of FVG Select was networking, business matchmaking and gathering new industry knowledge. This was facilitated through an extensive conference and matchmaking program.

Conferences

The following conferences were organized in collaboration with our partners AEBIOM, Aquafeed.com, IFF & Wageningen University, Perendale Publishers and WATT Global Media:

- **FIAAP Animal Nutrition Conference 2017**
- **Aquafeed Horizons Europe 2017**
- **AEBIOM International Pellet Conference 2017**
- **Petfood Forum Europe 2017**
- **GRAPAS & Global Milling Conference 2017**
- **VICTAM Feed Processing Conference 2017.**

Business matchmaking

The matchmaking program consisted of a combination of an online tool, which allowed exhibitors and visitors to plan their appointments very efficiently together with a personal approach by Victam matchmaking consultants before and during the event. It added between 10-20% meetings to everyone's schedule.

VICTAM News Room

Another new feature that was introduced during this event was the VICTAM News Room. Speakers, visitors and exhibitors were interviewed about their expertise.

The news crew also made running reports about the events through Victam's social media channels. To catch an impression of the event and watch all the interviews you can go to our YouTube channel: Victam International.

FVG Select is an additional event to the large exhibitions and conferences in



Cologne and Bangkok. The business matchmaking program and the News Room will also be introduced during VICTAM Asia 2018 and VICTAM International 2019.



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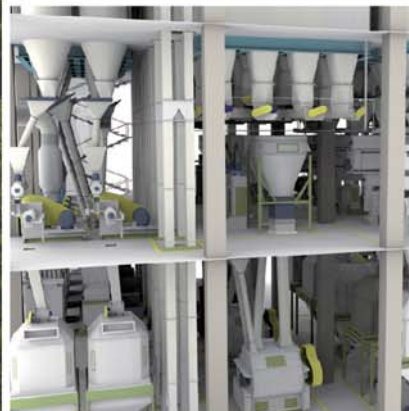
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Post-show Report

FVG Select, the new event by Victam International BV, took place from June 13-14, 2017 at KoelnMesse exhibition center East. The focus of FVG Select was networking, business match-making and gathering new industry knowledge. This makes FVG Select very different from the large exhibitions VICTAM International and VICTAM Asia and a valuable addition to the Victam Portfolio.

The core of FVG Select was an extensive conference and business matchmaking program attended by **40%** of all attendees. The conferences were organized in collaboration with our partners AEBIOM, Aquafeed.com, IFF & Wageningen University, Perendale Publishers Ltd. and WATT Global Media. The Industry Expo only allowed for a limited number of companies (55) to present themselves (versus the 250-350 exhibitors attending VICTAM Asia or VICTAM International).

Two new features were introduced during FVG Select: the business matchmaking program and the VICTAM News Room. The business matchmaking program added around **15%** extra meetings to everyone's schedule. It was a combination of an online tool and personal support by the Victam matchmaking consultants.

The platform was visited **3.208** times, collecting **5.276** profile views. It allowed exhibitors and visitors to plan their appointments prior to the event in a very efficient way which resulted in over **80%** of all the meetings

being rated as highly satisfied.

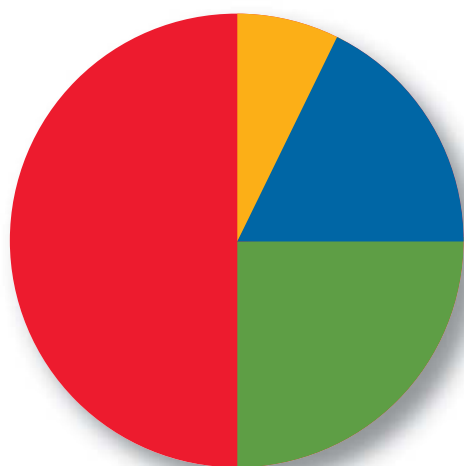
The other new feature was the VICTAM News Room. Speakers, visitors and exhibitors were interviewed about their expertise. The news crew also made running reports about the events through Victam's social media channels resulting in **>1.500** views. To catch an impression of the event and watch all the interviews you can go to our Victam International channel on YouTube.

The profile of the 55 exhibitors in the industry expo was very diverse. They represented **17** different countries, **70%** are based in Europe and **30%** in the rest of the world. **57%** of the exhibitors stated that they would participate in the next edition of FVG Select. You can view the exhibitor list on page 8.

The event was attended by **926** unique attendees from **56** different countries, paying **1.227** visits over 2 days. This was far above the expected 750 attendees and 1.000 visits (their geographical breakdown is shown on the map below). **78%** of the visitors were decision makers or influencers in the purchasing process. **21,9%** of the visitors came from (among others) the animal feed industry, **18,9%** from the pet food industry and **10,5%** from the aqua feed industry. The main reason for visiting this event was networking, visiting specific companies, staying in touch with suppliers and meeting new suppliers. **68%** of the visitors stated that they would attend the next edition of FVG Select.

Geographical breakdown of visitors





Job functions of visitors	%
CEO, Director	49,9
Management	17,5
Nutritionist	7,0
Other	25,6
Total	100

Influencers in the purchasing process	%
Final decision maker	20
Co-decision maker	35
Advisor/influencer	23
Not involved	22
Total	100



Main business activities of visitors	%
Animal feed industry	21,9
Pet food industry	18,9
Aqua feed industry	10,5
Integrators	17,9
Rice & Flour industries	14,1
Biomass	3,2
Others	13,5
(Universities, Chambers of Commerce, Government, Media and unspecified)	
Total	100

Some visitor quotes:

“It’s the perfect way for increasing your networking”

“Interesting sessions, and this matching meeting is a good idea”

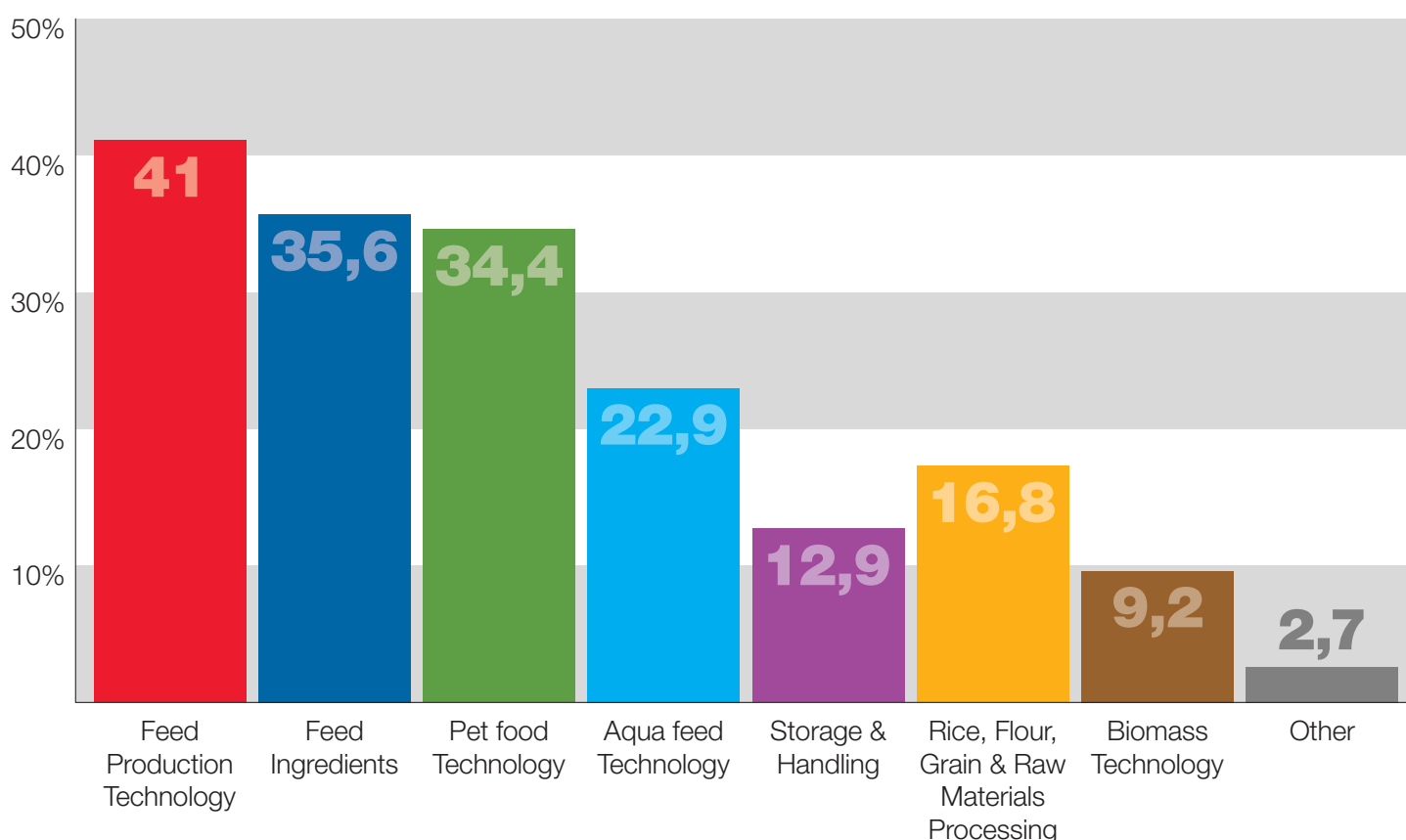
Some exhibitor quotes:

“I’m overall satisfied with the FVG Select. I will for sure participate at the next FVG”

“Very well organized - so a good experience”

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.



Your Ingredients for Success!



Supporting conferences of FVG Select 2017

- Aquafeed Horizons Europe 2017
- Petfood Forum Europe 2017
- FIAAP Animal Nutrition Conference 2017
- VICTAM Feed Processing Conference 2017
- GRAPAS & Global Milling Conference 2017
- AEBIOM International Pellet Conference 2017

Upcoming events

VICTAM Asia 2018

27 – 29 March 2018
BITEC, Bangkok, Thailand

VICTAM International 2019

12 – 14 June 2019
Koelnmesse, Cologne, Germany

Organised by

Victam International BV

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Exhibitors at FVG Select 2017

Actemium
AERES Training Centre International
Aerox BV
Ag Growth International
Bastak Food Machine Medical Co.
BÜCHI Labortechnik GmbH
Bühler Group AG
Cetec Industrie
Concetti S.p.A.
CPM Europe BV
Dinnissen BV
DMN-Westinghouse
dol-sensors
DSL Systems Ltd
E.S.E. & INTEC
Extru-Tech
FAMSUN (Muyang Holdings Co.,Ltd)
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Format Solutions Ltd
FP Engineering Ltd – FP Spomax SA
F.H. Schule Muehlenbau GmbH
Fundiciones Balaguer SA
Goudsmit Magnetics Group
Hydronix Ltd
Insta-Pro International
Interjute
Jesma Vejeteknik A/S
Amandus Kahl GmbH & Co. KG
KSE Process Technology
Laidig Systems, Inc.
Laurent Bellec
Milling & Grain / International Aquafeed
MORILLON
Münch-Edelstahl GmbH
Neuro Industrietechnik
Perten Instruments
Promtek Limited
Rotex Europe
Schenck Process
Simatek Bulk Systems A/S
STIF
Sukup
Sun Magnetic Sys-Tech Co. Ltd
Symach Bag Filling & Palletizers
Symaga S.A.
TEWS Elektronik GmbH & Co.KG
Tietjen Verfahrenstechnik GmbH
Uniqair Technologies Ltd
Van Aarsen International
Van Mourik Group
Vibrafloor
Victam International B.V.
Virtual Factory Tour
Virtual Reality Room
Vortex Global
WATT Global Media
Wenger Manufacturing, Inc.
Yemmak A.S.

Some quotes on the matchmaking program:

“The matchmaking booth system is a great idea, allowing those without booths to schedule meetings and have a positive business environment to meet”

“I found the opportunity to arrange an appointment with visitors and exhibitors through a website very useful. I would welcome this opportunity at every similar event”



93% of the participants rated the business matchmaking program to be good to excellent *

**Source: onsite survey among participants*

Asia's largest dedicated feed & grain show returns to Bangkok in 2018

VICTAM Asia 2018 will be organised from March 27 – 29, 2018 in Bangkok, Thailand. The exhibition and conferences will be held once again at the Bangkok International Trade & Exhibition Centre (BITEC) in Bangkok, Thailand.

VICTAM Asia is firmly established as the event dedicated to the animal feed processing, grain processing, ingredients & additives, aqua feed and pet food industries within Asia. The last edition in 2016 was sold out. You can read all about the facts & figures of VICTAM Asia 2016 on the event's website: www.victam-asia.com. Victam International BV expects that the 2018 edition will sell out again.

The VICTAM exhibitions display the latest technology, ingredients and additives available to manufacture and process feed for animals, pets and aquatics, together with a wide range of necessary ancillary equipment – silos, conveyors, bagging, elevators, etc. The exhibitions also showpiece the newest equipment for grain, rice and flour milling.

Co-located with VICTAM Asia are a series of high quality industry conferences: Petfood Forum Asia 2018, Aquafeed Horizons Asia 2018, FIAAP Animal Nutrition Conference Asia 2018, GRAPAS & Global Milling Conference Asia 2018, Proagrica Feed Efficiency Conference and a seminar by GMP+. Exhibitors will also be given the opportunity to present technical seminars. More details about the conferences and seminars can be found on our website.

New features at VICTAM Asia 2018 include a business matchmaking program and the VICTAM News Room. The matchmaking program focusses on high quality meetings and will consist of a combination of an online tool, which allows exhibitors and visitors to plan their appointments very efficiently and a personal approach by our matchmaking consultants. They will help exhibitors and visitors get the most out of the program and will support them in finding their match.

The other new feature is the VICTAM News Room. The VICTAM News Room will report semi-live from the show floor to allow those that can't attend to be part of the action. Furthermore, speakers, visitors and exhibitors will be interviewed about their expertise and the news crew will make running reports about the event through Victam's social media channels.

We are proud to have the support of the following organisations:

- Thai Feed Mill Association
- The Feedstuff Users Promotion Association
- The Animal Husbandry Association of Thailand
- Thailand Convention & Exhibition Bureau



Conference schedule at a glance

Tuesday, March 27, 2018

- Aquafeed Horizons Asia 2018
- FIAAP Animal Nutrition Conference Asia 2018
- GRAPAS and Global Milling Conference Asia 2018
- Technical seminars

Wednesday, March 28, 2018

- Petfood Forum Asia 2018
- Proagrica Feed Efficiency Conference Asia 2018
- GMP+ seminar
- Technical seminars

Thursday, March 29, 2018

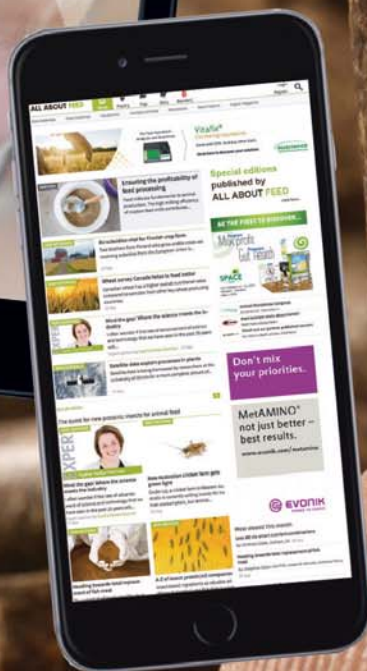
- Technical seminars
- Schedule is tentative to change*



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Petfood Forum Asia 2018: Innovation for dynamic pet food markets

Pet food industry experts will address the latest research and key topics for these fast-growing pet food markets.

Most pet food markets in Asia are growing by double digits annually, thanks to overall economic and income growth and the increasing numbers of pet owners feeding commercial, packaged pet food. Professionals in these markets can learn information and tips for taking advantage of this growth during Petfood Forum Asia 2018, scheduled for 28 March.

Co-located again with VICTAM Asia 2018 at the Bangkok International Trade and Exhibition Centre, Petfood Forum Asia will feature industry experts addressing how to build an online community to better market and sell pet food via ecommerce, plus providing information on novel and functional pet food ingredients, pet food processing innovations and savings, and other key topics.

Fast-growing pet food markets

Overall, the Asia-Pacific region is growing about 6 percent a year in pet care sales (all pet products), according to Euromonitor International. Japan is by far the largest market in the region, accounting for more than half of Asia's US\$9.8 million dollars in pet care sales.

Yet Japan is experiencing no growth, while other Asia-Pacific markets are rising by double digits, particularly in pet food sales. China, for example, has reached about US\$1.5 billion, according to GfK, and is experiencing at least 14 percent growth annually. Online pet food sales in China are especially robust, growing over 40 percent a year.

Though other markets in Asia are small (less than US\$1 billion annually in pet care sales), they are seeing annual growth ranging from 10 percent in the Philippines to more than 26 percent in India. Also registering double-digit sales increases are Thailand (13.7 percent) and Indonesia (14 percent), with Hong Kong, South Korea,



Taiwan and Malaysia following and enjoying still healthy growth rates of 8.8, 7.6, 7.6 and 6.2 percent, respectively.

If you isolate pet food sales, the growth is often even more robust. For example, Euromonitor projects that economy-priced dry pet food in Korea will grow at 15 percent or more annually through 2022. And as in China, ecommerce is a strong retail channel in Korea, accounting for 30 percent of pet food sales, second only to grocery stores at 35 percent.

Petfood Forum Asia 2018 updates

Petfood Forum Asia 2018 will highlight similar data and insights about the Asia-Pacific region. Information on specific topics and speakers will be available soon at www.PetfoodForumEvents.com/Asia/. Bookmark the website to also learn about early-bird registration savings, the agenda and more.

Spotlight on Asia pet food markets

South Korea:

www.PetfoodIndustry.com/articles/6638

China:

www.PetfoodIndustry.com/articles/5995

Philippines:

www.PetfoodIndustry.com/articles/6679

Above: Petfood Forum Asia 2018 will draw pet food professionals from throughout Asia and around the world.

Below: Mariko Takemura of Euromonitor International presented information about Asian pet food markets during Petfood Forum Asia 2016.



Following the success of the 'GRAPAS and Global Milling Conference 2017' held during the recent FVG Select gathering in Köln, Germany, this highly-anticipated event will be back next year in Bangkok, Thailand, on March 27, 2018 the first day of VICTAM Asia.

GRAPAS Asia 2018 conference: Bigger, brighter, better

This year the GRAPAS conference fell as part of the FVG Select on June 13, 2017 in Köln, Germany. The focus was on "Flour Milling and Grain Processing" and was organised by Perendale Publishers Limited.

Close to a thousand visitors came through the doors of the KoelnMesse exhibition center, representing 59 countries and almost every continent. This event showcased products such as ancillary equipment found within mills, with its main coverage on specialist systems and technology used within feed, flour and to a lesser extent rice mills, together with additional exhibits around grain storage, preservation and transportation etc.

Meanwhile, VICTAM Asia is firmly established as the event dedicated to the animal feed processing, grain processing, ingredients and additives, aqua feeds and petfood industries throughout Asia and beyond. The last edition was sold out.

VICTAM in Europe will follow on from VICTAM Asia in 2019, it will be held from June 12 – 14, 2019 in Köln, Germany. 'GRAPAS and Global Milling Conference' will be held during each one of these Victam events; VICTAM Asia (Thailand), VICTAM (Germany) and FVG Select (Europe).

A typical line-up

Speakers and talks at the most recent conference with several of the topics to be re-visited in Victam Asia included:

- Ensuring food safety in the milling process
Thomas Ziolk, Product Manager Industrial Milling, Bühler Switzerland
- Quality evaluation of UK milling wheat –
Martin, Whitworth, Principle Scientist, Production and Processing, Campden BRI, UK
- GRANoFLAKES: A new approach for the production of high quality extruded cornflakes – *Julie Prost, Process Engineer, Clextral*
- Mechanisms of structure formation in baked products – *Martin Whitworth, Principle Scientist, Production and Processing, Campden BRI, UK*
- Rice milling: The role of extrusion technology in the milling industry – *Thomas Landert, Vice-President International Sales, Wenger Manufacturing, USA*
- Training the millers: Are we providing enough trained mill leaders? – *Alexander Waugh, Director, nabim UK*
- The future importance of lesser known grains to global milling – *Clifford Spencer, Chairman, Milling4Life CIO, UK*
- Present situation and development of

Chinese roller machining technology –
Professor Wenbin We, Head of the Institute of Grain Machinery, University of Henan, China

- Internet of things: Sensors and online measurements for milling – *Nicholas Trounce, Head Product Management Industrial Milling, Bühler Switzerland*
- Bring back neglected cereals: From ancient grains to superfoods – *Professor Dr Thomas Miedaner, Research Scientist, Dr Friedrich Longin, Research Scientist*

Selected by name and by topic, there were a limited number visitors to the GRAPAS and Global Milling Conference 2017, however the social media promotion attracted over 1700 additional participants as it was live-streamed to industry followers.

FVG Select 2017 itself saw 55 exhibitors present to the industry. The focus of the two-day event was networking, business matchmaking and gathering new industry knowledge; this was facilitated through six one-day extensive conferences such as the GRAPAS event.

The matchmaking programme, an innovation adopted by Victam the organiser of FVG Select, enabled exhibitors and visitors alike the ability to plan their appointments efficiently and provide a personal approach with an online tool supported by Victam matchmaking consultants, before and during the event – adding between 10-20 percent more meetings to everyone's schedules.

It was a feature that went down very well with those who attended and will be making a return during Victam Asia 2018 and Victam 2019 in Germany, along with the 'News Room' feature.

The 'News Room' was where speakers, visitors and exhibitors were interviewed about their expertise. News crew also made running reports about the events through Victam's social media channels.

With the successes of the 2017 meeting, creating waves throughout the industry, readers should stay tuned for upcoming details and speaker programme for the event in Thailand. Aside from the beautiful setting – this is one conference you won't want to miss.



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Aquafeed Horizons Asia 2018: Opportunities and challenges abound in aquafeed sector

The aquaculture feed industry continues to grow – in volume, in variety and in sophistication, as it scrambles to meet the demands of the world's fish, shrimp and shellfish farmers. *By Suzi Dominy, Publisher, Aquafeed.com*

Aquaculture continues to establish itself as by far the fastest growing feed sector. As with all feed industries, it is the cornerstone of livestock production – in this case, aquatic livestock. While the aquafeed industry's expertise helps drive aquaculture growth, the growth of aquaculture is in turn driving the development of aquafeeds. The lure of this fast expanding market and the opportunity to sell feed at many times higher prices than feed for pigs, chicken or ruminants draws many to consider the sector, however, the complexities should not be underestimated.

Aquaculture is comprised of established species, such as carps, salmon, shrimp and tilapia, catfish, seabass and bream, where the nutrient requirements and feeding habits are relatively well understood. Then there is a following wave of emerging species, such as cobia, tuna and grouper, where the development of optimal feeds is still ongoing – and literally hundreds more species that we are only just beginning to understand. A case in point is cleaner fish feed: Lumpfish (*Cyclopterus lumpus*) and ballan wrasse (*Labrus bergylta* Ascanius, 1767) are the new biological weapons against sea lice that are the plague of salmon cages. Even with the more established species, defining the nutrient requirements of early lifestage and broodstock animals is a challenge.

Trends and influences

Aquafeed, in common with the rest of the feed industry, is subject to the requirement to produce sustainable and environmentally sound feeds. Carbon footprint, water usage, emissions and all the other considerations all too familiar sounding to anyone involved with feed are important, along with factors unique to aquaculture, such as non-water polluting pellets. But what we see driving development most is the replacement of fishmeal and oil with alternatives. Of course, for most species, fish is the ideal and most natural food, so replacement raises many challenges for



Above: The cleaner fish (Ballan Wrasse and Lumpfish/Lumpsuckers) are being produced in some 30 facilities in Norway and beyond and are working eating lice in the salmon cages very effectively. In 2016 Norway alone needed approximately 50,000,000 cleaner fish.

these sensitive animals in terms of digestibility and nutrition, as well as flesh quality. While some companies aspire to replace fishmeal completely, or to utilize fish by-catch and by-products instead of caught fish, others have focused on improving the Fish In Fish Out (FIFO) ratio.

The trend is seen in companies of all sizes but the research capabilities of the biggest companies allow for some of the most interesting developments. BioMar Group, for example now boasts a FIFO ratio of below 1, in alignment with UN Sustainable Development Goals. BioMar has over

several years aimed to take the lead in researching alternative materials for fish oil and fishmeal including plant proteins and marine ingredients like micro algae. New alternative raw materials as well as high prices of fish oil and fishmeal in 2016 made it possible to formulate price competitive, high performance feed with a low FIFO ratio. The company has also partnered with Aker BioMarine in the sustainable harvesting of krill from the lower trophic levels.

The move away from fishmeal is not confined to Europe and Scandinavia: Thailand's agrifood giant Charoen Pokphand Foods PLC (CPF) announced it is moving forward in collaboration with various organizations to reduce the fishmeal ratio in aquaculture feed production to no more than 5%. The company has shifted production from black tiger shrimp (*P. Monodon*) to White Leg shrimp (*P. Vannamei*), which has a lower protein >>>



Marine Harvest ASA is one of the largest seafood companies in the world, and the world's largest producer of Atlantic salmon with a harvest of 381,000 tonnes of fish in 2016. It is now building its own feedmills. The Marine Harvest feed plant on the Bjugn peninsula in Norway is producing salmon feed with 10% of fish meal inclusion.

➤ requirement, allowing the fishmeal portion in shrimp feed production to fall from 35% in the past 20 years to 7% at present. CPF generally sources its fishmeal for the company's shrimp farms from by-products of processing plants like surimi, canned tuna and fish ball plants; and by-catch, which is subjected to the sustainability and traceability rules under the International Fishmeal and Fish Oil Organization's Responsible Supply Chain of Custody (IFFO RS COC) which are certified by the IFFO.

Researchers at Nutreco's aquafeed division, Skretting Aquaculture Research Centre, have been actively investigating alternative raw materials for many years. N3, a salmonid diet that utilizes a new marine algae oil, was recently launched and will be available globally in 2019. Jointly produced by DSM and Evonik, the natural algae oil incorporated in N3 contains high levels of EPA and DHA.

New targeted feeds

There has been a slew of new feed products during the summer. Skretting's N3 launch comes hot on the heels of its Prime and Express, a duo of salmon feeds designed for faster and more efficient digestive break down and processing. The two distinct products are tailored to the physiological requirements of the fish at different life stages. Prime prepares the fish, building a solid foundation to support fast, high-quality growth. Express builds on the framework created by Prime, maximizing the speed of growth by enabling the fish to fully utilize the potential in the feed. This means that the feed can go through the digestive process much faster.

Good growth in the first phase in seawater should support the recruitment of new muscle fibres and a healthy bone deposition. In the later seawater phase that leads to harvest, growth occurs primarily by enlargement of the existing muscle fibres and by deposition of fat. Growth at this final

stage is only as good as the foundation laid down in the first phase. Grower feeds typically contain high levels of fat. Salmon will digest and absorb this fat and deposit it in the fillet. However, processing a high-fat feed can be challenging to the fish's digestive system. Express is designed to enable salmon to take up the fat from the feed more proficiently. Validation trials conducted with Express showed that it significantly reduced the accumulation of fat in the intestinal cells, suggesting a far more effective absorption of fat.

Specialized RAS feed

EWOS has produced a feed specifically for the increasing number of land-based recirculating aquaculture systems. The new holistic salmon feed has been developed specifically to deliver optimum RAS operational results through targeted feed design and optimal fish performance.

Rearing salmonids in RAS facilities is a high technology business. EWOS identified the needs for a specialized feed to meet the challenges of suspended solids removal and disposal, fecal stability, and total ammonia nitrogen (TAN) build up in the water. The EWOS CLEAR product is based on a model that combines RAS engineering, nutrient mass balance and bioenergetics and thus takes a holistic approach. The focus on designing the feed was threefold: macronutrient balance (digestible protein and digestible energy); digestibility of the raw materials and physical quality of the feed. Initial development started with trials measuring a wide range of relevant parameters including feed digestibility, fecal stability



The nutrient requirement of many catfish broodstock, such as these freshwater butter fish, Ompok pabda, popular in South Asia, are still poorly understood.

and fish health (histological appearance of gastro intestinal tracts). Field trials were subsequently held at one of the largest commercial RAS facilities in Norway to confirm freshwater feed that meets the needs of the fish and also the requirements of the RAS operations. EWOS claims the feed allows for more fish to be produced within the same facilities, thus making better use of the RAS.

Feed for health

Aller Aqua Norway has carried out promising trials with rainbow trout using their new Aller Active feed, which has added organic minerals to strengthen overall fish health. The trial, focused on the feed's impact on skin and mucus layer, as well as the overall health and quality of the fish. The fish and a control group were fed Aller Active and another Aller Aqua feed, respectively. The trials showed that the fish resistance to disease and lice, as well as mucus layer, increased significantly when fed the new feed. It aids in better utilization of nutrients, proteins, minerals, and oils and the fish mucus layer is thickened.

At Aquafeed Horizons Asia 2018, to be held once again in association with Victam International, the utilization of fishmeal replacements and their impacts on processing and feed formulation along with other advances will be an important focus. The 11th in Aquafeed.com's international technical conference series will take place March 27, 2018, the first day of VICTAM Asia 2018, at the BITEC Bangkok.

More information can be found at <http://feedconferences.com> and registration will be available in January.

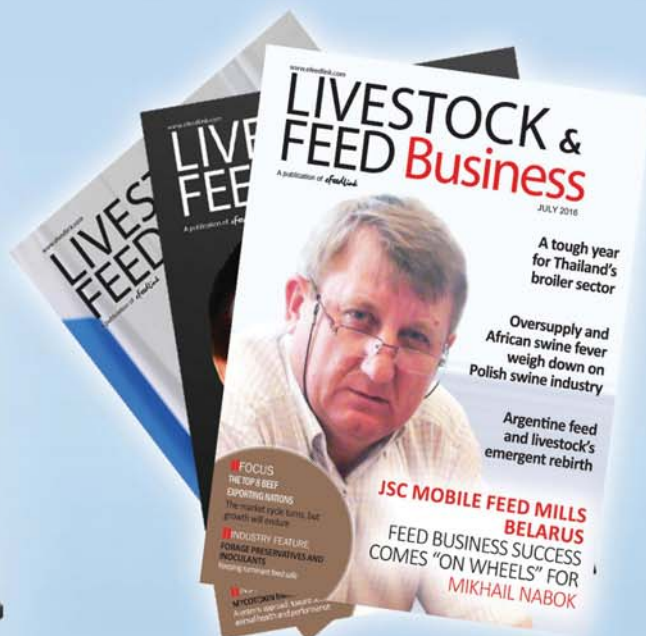
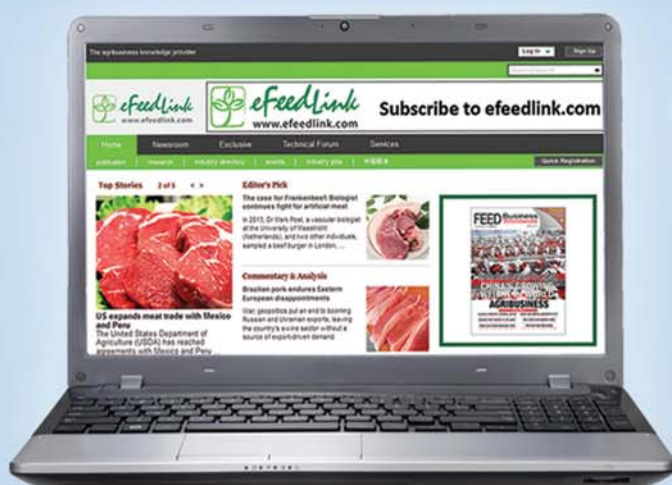


About the author

Suzi Dominy is the founder and publisher of Aquafeed.com. She brings unique insight and depth of experience, gained over three decades in professional feed industry journalism and publishing. She can be contacted at editor@aquafeed.com

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2018 FIAAP Animal Nutrition Conference highlights strategies for adapting to evolving feed industry

Ninth edition of event offers exclusive insight into how feed industry stakeholders can improve animal performance, health.



The theme of the 2018 edition of the FIAAP Animal Nutrition Conference will center around strategies feed producers and nutritionists can implement to improve animal performance in the face of changing regulations and production demands, e.g. antibiotic-free production.

The one-day event's focus aligns with WATT Global Media's January 2018 launch of *Feed Strategy* magazine. *Feed Strategy*'s mission is to be the animal feed processing resource for navigating today's consumer-driven protein production.

The focus of *Feed Strategy* will encompass animal feed solutions for a growing world with quickly changing consumer needs.

Keeping in line with previous editions of the FIAAP conference, the 9th edition will focus heavily on the latest innovations and research in animal feed ingredients and additives.

In addition to gaining added perspective on the issues shaping the global animal

feed industry, attendees will have the opportunity to network with the panel of expert speakers and fellow feed industry professionals across the poultry, dairy and swine industries.

The speaker agenda will be announced in early 2018.

Co-located again with VICTAM Asia 2018 at the Bangkok International Trade and Exhibition Center (BITEC), the FIAAP Animal Nutrition Conference will be held March 27, 2018, in Bangkok, Thailand.

About FIAAP Animal Nutrition Conference

FIAAP Animal Nutrition exhibitions and conferences cover the ingredients and additives used within the formulation of animal feeds.

The conference is geared toward the interests of nutritionists, veterinarians, feed producers, formulators and industry consultants.

For more information, please visit www.FIAAP-Conferences.com.

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Proagrica Feed Efficiency Conference Asia 2018: **Focus on feed data at VICTAM Asia**

Proagrica, a global division of Reed Business Information, specialising in the agriculture industry, will have an even bigger presence at VICTAM Asia than ever before.

Proagrica, publisher of the global brand All About Feed will host the Feed Efficiency Conference. This event will focus on how to achieve an improved level of feed efficiency. Speakers will delve deeper in new approaches and translate them to

feed processing and formulation professionals. Also, a keynote address, focusing on the increasing availability of big data in agriculture and raw material supply will be organised by Proagrica at the opening of the VICTAM Asia 2018.

For more information on how to become part of the conference and sponsor one of the presentations, contact us at **salesint@proagrica.com**.

We look forward to meeting you at our booth at VICTAM Asia and at our events.



Technical seminars

Exhibitors will have the opportunity to give presentations during a technical seminar. Technical seminars will be given on all three show days (March 27 – 29, 2018) between 10:30 and

17:30 on the first two days and 10:30 – 15:30 on the last day. During these seminars you will be able to receive more information on specific products of one of our exhibitors.

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Two exciting new features to be introduced at VICTAM Asia 2018

VICTAM Asia 2018 will see two new features introduced: a business matchmaking program and the VICTAM News Room.



The business matchmaking program (above) and the News Room (below) both proved to be very popular features at FVG Select 2017.

Matchmaking at VICTAM Asia 2018

Meeting the right companies and people and having relevant meetings is your number one priority during an event.

Successfully introduced during FVG Select, Victam International BV will implement the business matchmaking program at VICTAM Asia 2018 from 27 – 29 March in Bangkok.

There are many ways you will benefit from making use of this program:

- Find companies to buy or sell your services and products to
- Locate investment opportunities in your fields of interest
- Form lucrative partnerships and collaborations for business
- Broaden your personal network to advance your career

The business matchmaking is designed for both exhibitors and visitors. The program is an easy-to-use online technology platform

called JUBLIA. The tool allows you to review profiles and schedule meetings with attendees who interest you before the event. Combined with a personalised service from our business matchmaking consultants, it will help you maximize your networking opportunities.

We will open up the tool six weeks before the event, in February 2018.

VICTAM News Room

Another new feature that will be introduced during VICTAM Asia is the VICTAM News Room. Speakers, visitors and exhibitors will be interviewed about their expertise. The news crew will also make running reports about the event through Victam's social media channels.

To catch an impression of what to expect you can watch all the interviews and movies from FVG Select on our YouTube channel: Victam International.



Practical information

Bangkok is the political, economic, cultural, culinary, and spiritual capital of Thailand, and features both old-world charm and modern convenience.

Visitors who travel to Bangkok can be overwhelmed by the sheer size of the city and the vast number of attractions Bangkok has to offer. Indeed there is a wide variety of Bangkok sightseeing opportunities spanning more than two centuries of rapid development following the city's founding in 1782 by King Rama I, the first king of the present Chakri dynasty.

Since that auspicious date, Bangkok has swelled to a cosmopolitan, 21st century city of more than ten million inhabitants. Whilst the immensity of the city and its bustling streets can be intimidating at first, those who spend some time in Bangkok are quickly enamoured by the myriad of attractions it contains, from exotic temples, which underscore Thailand's strong Buddhist history, to modern shopping malls.

Try to visit Thailand's Grand Palace, arguably the premier Bangkok sightseeing

attraction. Situated in the heart of Bangkok's Rattanakosin Island, the gleaming spires of the Grand Palace are conveniently located nearby Bangkok's most spectacular temples, including the Temple of the Emerald Buddha (Wat Phra Kaeo), the Temple of Dawn (Wat Arun), and Wat Pho. These iconic destinations are top attractions to all visitors who travel to Bangkok looking to appreciate Thailand's unique cultural traditions.

When you travel around Bangkok, a cruise on the Chao Phraya, a visit to a floating market, or an exploration of the cities 'back alley' canals (khlongs) are themselves unique attractions. Other historical and cultural Bangkok sightseeing 'must sees' include the National Museum, Vimanmek Mansion, and Suan Pakkad Palace, all of which either house fine art or are national treasures in their own right.

Key tips

- Beware of scams involving tuk tuks, gem shops, and tailors, particularly around popular tourist attractions. Remember, there is no such thing as a free ride. It's better to flag down taxis that are already driving (the red light means empty); these will generally use the meter while parked taxis typically ask for higher fixed fares or will take you for the proverbial 'ride'.
- Be aware of the possibility of credit card fraud. Don't lose sight of your card during transactions.
- Be on your guard against pickpockets and bag snatchers. Foreign visitors have had items snatched by thieves on motorbikes when walking along busy streets or travelling in open transport like tuk tuks.
- If you travel by bus, make sure cash and valuables you have are kept securely. There



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for VICTAM Asia 2018

have also been incidents where passengers have had items taken from bags while asleep.

- If you need emergency medical assistance during your trip, dial 1669 and ask for an ambulance. You should contact your insurance/medical assistance company promptly if you are referred to a medical facility for treatment.
- You should also take mosquito bite avoidance measures.

The venue

VICTAM Asia 2018 takes place at the Bangkok International Trade and Exhibition Centre (BITEC). BITEC has its own station at Bangna on the efficient Skytrain system. This enables fast, air-conditioned and cheap travel to the exhibition halls.

Entrance ticket

The entrance ticket for the exhibition is *free of charge*. We do encourage you to register online to avoid a queue onsite. A separate fee may be charged for the

conferences. Visitor registration will open in January 2018.

Accommodation and travel

Bangkok offers a wide range of hotels to suit your budget requirements. A number of local hotels have been selected to accommodate visitors and conference delegates. These hotels will be offering special accommodation rates and are in the bustling downtown area of Bangkok.

Bangkok's international airport, Suvarnabhumi airport, is served by the major airlines, with frequent flights from all over the world, and especially its Asian neighbours (see table, right).

If you require a visa, we advise you to arrange this early to avoid disappointment.

Further information

For hotel reservations, further (visa) information and a map of Bangkok, visit our website at www.victam-asia.com. Click on the button 'practical information' at the top of the page.

Flight duration times from major Asia/Pacific cities (approximate timings)

Beijing	5.25 hours
Christchurch	11.75 hours
Dhaka	2.50 hours
Hanoi	2.00 hours
Hong Kong	2.75 hours
Jakarta	3.50 hours
Kuala Lumpur	2.25 hours
Manila	3.25 hours
Mumbai	4.75 hours
New Delhi	4.50 hours
Phnom Penh	1.25 hours
Rangoon	1.50 hours
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2017 GLOBAL FEED SURVEY

2016

TOTAL GLOBAL
TONNAGE (MM)

1,032.2



+3.7%

NUMBER OF FEED
MILLS GLOBALLY

30,090



-7%

2015

TOTAL GLOBAL
TONNAGE (MM)

995.6

NUMBER OF FEED
MILLS GLOBALLY

32,341

GLOBAL TONNAGE PER YEAR

UP
1.6%
PER ANNUM



PRODUCTION EXCEEDS 1 BILLION METRIC TONS FOR FIRST TIME EVER

For the first time ever, this year's survey estimates global feed production at over one billion tons of feed. Since the Global Feed Survey debuted six years ago, the feed industry has seen an increase in production of 161 million metric tons, a growth of 19% (or 2.95% per annum). As the world population continues to rise, it will be fascinating to see over the course of the next four years what the feed industry looks like in 2020 and indeed in 2050, when the expected population should surpass 9 billion.

The survey has become more comprehensive than ever before as it now includes data from 141 countries. With information from over 30,000 feed mills, this is the most complete and extensive evaluation of the state of animal feed production and consumption available today. Each year the survey gains deeper insight into the industry, therefore making the analysis more thorough and robust than ever before.

Although annual feed production was up 3.7%, this was achieved with 7% fewer feed mills. This trend has been most notable in the largest producing country, China, which has seen tremendous consolidation of feed mills in recent years and this year reported a nearly 30% decline. Other smaller producing countries have also seen a decrease in mill numbers, particularly in the Asia Pacific region such as India, South Korea and Vietnam which are reporting reductions of 39%, 18% and 13%, respectively. Overall, the combination of increased production with decreased number of mills reflects a continued consolidation of agricultural production, in spite of the continued growth in animal protein consumption. Increased production of meat, milk and eggs is also being achieved through fewer producers as farms integrate and feed efficiencies increase.

REGIONAL HIGHLIGHTS

Over the last five years, Africa has been the fastest growing region; this year's growth was over 13%. Half of the countries grew strongly and only a handful actually had lower reduction in production. Shining stars for the region include Nigeria, Algeria, Tunisia, Kenya and Zambia, all of which saw growth of at least 30%. Africa is one of the more difficult regions from which to obtain information, nonetheless there were a few new countries added to this year's survey. It is worth noting that the region still lags in penetration of feed per capita (feed produced per person) reflecting a poorly developed animal protein sector. Nigeria's leadership within the region is indicative of population growth which is expected to make it the fourth largest country in population by 2050 and the related economic possibilities as it and other countries continue to demonstrate economic prosperity. Africa presents the greatest growth opportunity for the feed industry.

The Asia Pacific region continues to lead in production and also shows promising growth at nearly 5%, indicating that it won't be surpassed any time soon. The largest producer, China, continues to contribute to the region's leading position, but up and coming countries such as Vietnam and Pakistan as well as consistent performers such as India and Japan will also contribute to the regions lead for the foreseeable future.

The European region's growth was on the smaller side, at only 3.33%. Some of this slow growth can be attributed to the tumultuous year the EU

has seen with Brexit and the reform of agriculture subsidies. The major story within the European region is Spain. It now leads EU feed production at 31.9 million tons, an 8% increase from last year. This increase is significant given that the region as a whole grew by 3.36% higher compared to last year. Other major contributors within the region include Russia, Germany and France, all of which again made it to the top ten list. Of notable mention is the reduction of feed production in the European dairy industry: Several leading countries saw noticeable decline including Germany, France, Turkey and the Netherlands. Enough smaller producing countries such as Ireland and Norway saw healthy growth that somewhat mitigated this decline and the overall result was a reduction of around two million tons.

Brazil continues to be the dominant player for the Latin America region. Mexico is gaining ground for 2016 and saw the most substantial growth in terms of tons for the region. This was particularly evident in the dairy and layer industries.

The Middle East saw the most significant growth of any region at over 16%. The survey extended its reach into this region somewhat and therefore was able to procure more robust numbers.

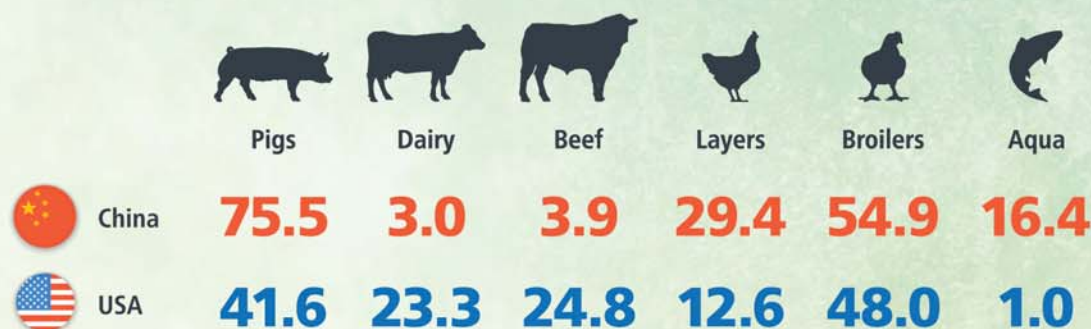
North America feed production remains relatively flat. The region continues to lead feed production in beef, turkey, pet, and equine.

REGIONAL TOTALS

	2016 Total Tonnage	Total Mills	Average Regional Growth
Africa	39.5	2081	13.2%
Asia Pacific	367.6	11,214	4.9%
Europe	249.4	5,307	3.4%
Latin America	157.5	4,287	4.0%
Middle East	27.1	732	16.7%
North America	191.1	6,470	-1.5%
Total	1,032.2	30,090	

COUNTRY HIGHLIGHTS

The combined production of China and the U.S. is over 1/3 of global production (35%). These two countries have been the top two in feed production since the first survey in 2011, but how do the two compare? Here's a quick analysis of their production numbers:



The mills in the top 30 countries are responsible for producing 86% of all feed. These top 30 countries are home to 82% of all feed mills. This leaves the other 14% of production spread across 111 other countries utilizing the other 18% of feed mills. The top 10 countries have half of the mills (56%) and account for 60% of all feed production, leaving 131 countries to produce 40% of feed with the remaining 44% of the feed mills.

TOP 10 HIGHLIGHTS



	Mills	2016
China	6000	187.20
USA	5970	169.69
Brazil	1554	68.93
Mexico	498	33.88
Spain	820	31.85

	Mills	2016
India	909	31.36
Russia	500	29.09
Germany	330	24.49
Japan	115	23.99
France	300	23.45

SPECIES NUMBERS

FEED TONNAGE



SWINE

Pigs

Africa	2.1
Asia Pacific	117.0
Europe	72.2
Latin America	30.3
Middle East	0.1
North America	50.6
Total	272.4



RUMINANTS

	Dairy	Beef	Calves	Other Ruminants
Africa	6.0	4.8	0.1	1.8
Asia Pacific	22.4	16.6	1.0	0.8
Europe	37.7	21.6	4.5	8.6
Latin America	16.8	11.3	0.7	0.0
Middle East	6.0	1.7	0.2	2.9
North America	27.4	26.0	0.3	0.3
Total	116.4	82.0	8.3	14.4



POULTRY

	Layers	Broilers	Turkeys	Other Poultry
Africa	8.5	11.3	0.2	0.1
Asia Pacific	66.1	105.9	0.2	2.6
Europe	28.8	47.5	5.7	3.5
Latin America	20.9	62.2	0.8	0.1
Middle East	5.5	9.2	0.3	0.2
North America	13.6	51.0	7.4	0.2
Total	143.3	287.1	14.6	6.6



OTHER SPECIES

	Aqua	Pet	Equine	Others
Africa	1.6	0.4	0.2	0.1
Asia Pacific	26.7	2.4	0.6	3.0
Europe	5.9	8.1	1.3	3.6
Latin America	3.6	5.2	2.0	1.5
Middle East	0.3	0.1	0.1	0.0
North America	1.8	8.8	3.7	0.2
Total	39.9	25.0	7.8	8.4



FEED COSTS REFLECT THE GLOBAL ECONOMY

In general, global feed prices are down when compared to last year's figures. As a result, so is the cost of raising production animals. From a global perspective, the feed industry can be roughly valued at around \$460 billion dollars, although feed prices in general were 5-7% lower than the previous year. This represents a small increase over 2015 reflecting higher values attributed to the pet, equine and other businesses. Alltech roughly estimates that the pig sector represents 24%, ruminants about 20%, poultry at 36%, aqua and pets each about 9%, and horses and others each at about 1%.

AVERAGE GLOBAL FEED PRICES

PIGS



\$355
-5%

LAYERS



\$370
-7%

BROILERS



\$422
-7%

This year marks the sixth anniversary of Alltech's Global Feed Survey, a yearly assessment of compound feed production. Data has been collected, analyzed and researched, representing more than 140 countries and combining information obtained in partnership with local feed associations and Alltech's sales team, who visited more than 30,000 feed mills.

CONTACT US

For more information on Alltech, or if you have comments on the 2017 Alltech Global Feed Survey, please contact us via e-mail at info@alltech.com with the subject line "2016 Alltech Global Feed Survey" or via mail at the address below.

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Antibiotic-free animal feed

Fifty-seven percent of respondents report more than half of their company's production is antibiotic free. *By Jackie Roembke, editor of Feed Management and Feed International.*

The 2017 WATT Nutrition & Feed Survey reveals growing trend for antibiotic-free animal feed production.

Find out how the animal feed industry is using additives to replace antibiotic growth promoters.

Driven by globalization, regulation, social responsibility and consumer demand, what was once perhaps characterized as a regional issue – the move to reduce antibiotics from livestock production – continues to gain traction around the world. The shift has left many animal feed producers and formulators looking for feed additive solutions as the key to developing effective antibiotic replacement and elimination strategies, report respondents to WATT Global Media's 2017 Nutrition & Feed survey.

The annual survey was conducted in early 2017 and includes the feedback of 364 participants from around the world:

- Latin America, 32 percent
- United States/Canada, 18 percent
- Asia/Pacific, 17 percent
- Europe, 15 percent
- Africa, 14 percent
- Middle East, 4 percent

More than half of participants were nutritionists, consultants and veterinarians, with the remaining portion of respondents comprised of operators, marketers and administrators.

Animal feed profitability outlook, challenges

For seven years, survey respondents have been asked to gauge the market and offer their feelings about prospective profitability for the year ahead. In 2017, 38 percent of participants cite negative or deteriorating profits. In contrast, 40 percent of 2016 respondents reported improving profitability; this year, the number hovered around 31 percent.

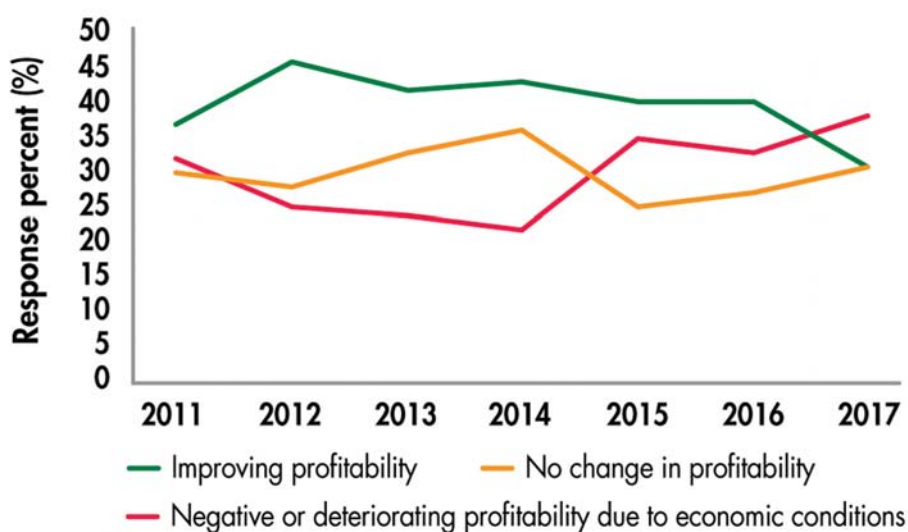
Taking a closer look to identify what may have spurred this trend, 80 percent of respondents strongly feel the cost of grain and/or exchange rate fluctuations was the top challenge facing their business.

Sixty-seven percent fear the effect of mycotoxins and other anti-nutritional factors on their 2017 profitability. Fifty-eight percent identified tight or deteriorating margins as their next major concern.

High energy costs related to feed transport and feed mill operations (57 percent) and the cost of feed additives (56 percent) were also noted as major concerns.

Profitability outlook, 2011-17

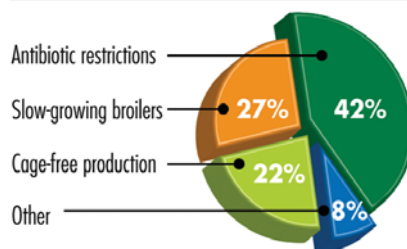
Source: WATT Global Media



In the 2017 survey, respondents were less optimistic about their company's profitability compared with their 2016 outlook. However, an increasing amount feel like it's business as usual. WATT Global Media

Greatest challenge to your company's 2017 feed formulation program and/or feed costs

Source: WATT Global Media



Most survey respondents cited increasing restrictions on antibiotic use as being the greatest challenge to their feeding programs. WATT Global Media

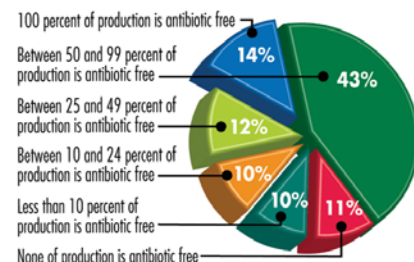
Antibiotic-free production surges

A sizable group of respondents feel the elimination of antibiotics due to regulation or consumer pressure (84 percent) will pose varying degrees of difficulty in 2017. Thirty-five percent of respondents are concerned about how – and if – they will be able to overcome the production losses after removing antibiotic growth promoters (AGPs).

Regarding rising costs, 42 percent of respondents feel antibiotic-free production will be the single greatest challenge to their feeding program. Slow-growing broilers (27 percent) and cage-free egg production (22 percent) also will cause problems, note survey participants.

Percentage of antibiotic-free animal feed production

Source: WATT Global Media



In 2017, 43 percent of survey respondents report 99 to 50 percent of their production as antibiotic free; in contrast, only 26 percent of 2016 respondents cited such. Perhaps related to this surge, only 11 percent of 2017 respondents report that none of their production was antibiotic free; in 2016, 20 percent did. WATT Global Media

production grows worldwide

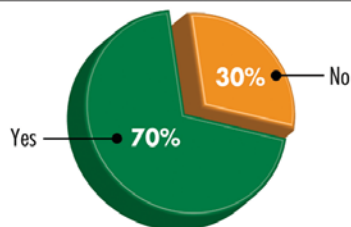
This year, 14 percent of participants report 100 percent antibiotic-free animal feed production.

Forty-three percent state their antibiotic-free feed production is somewhere between 99 and 50 percent. Compared with 2016, only 23 percent reported production in this range.

Also of interest, in 2016, 20 percent of respondents said none of their production was antibiotic free; in 2017, this number dropped to 11 percent.

Is your company actively exploring, testing or using feed additives as antibiotic alternatives/replacements?

Source: WATT Global Media



Given the consumer and regulatory climate, 70 percent of respondents report their company is actively exploring, testing or using antibiotic replacement feed additives. WATT Global Media

When asked what best reflects their company's nutritional and marketing stance related to antibiotic use, 59 percent of participants cite "prudent or judicious use," 37 percent say "antibiotic free" and 16 percent tout "no antibiotics ever."

Seventy percent of respondents report that their company is actively exploring, testing or using feed additives as antibiotic replacements or alternatives. But the move poses some unique challenges.

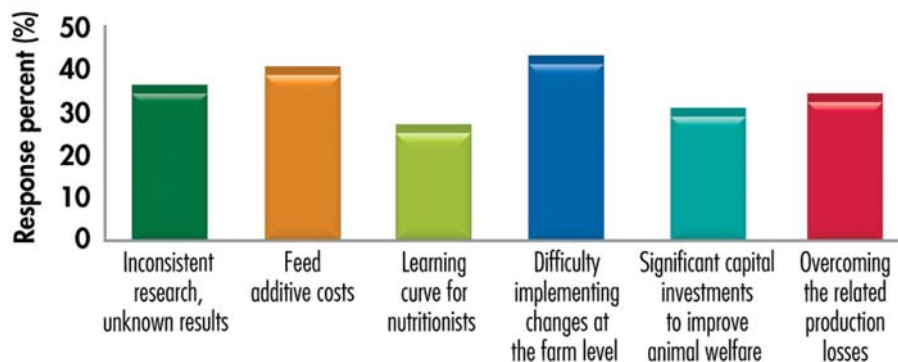
Forty-four percent of respondents report that, even if they find suitable feed formulation solutions, the adoption of proper on-farm management techniques to support animal health will be difficult to implement. They also are concerned about the additional feed additives costs (41 percent) and feel they need access to more research and education (37 percent).

Efficacy of feed additives for AGP replacement

Once the line of questioning became more specific, 20 percent of participants opted out because they did not have in-depth knowledge of their company's feed formulations. The remaining 80 percent delved into the feed additives they have

In your opinion, what are the biggest challenges faced by going antibiotic free?

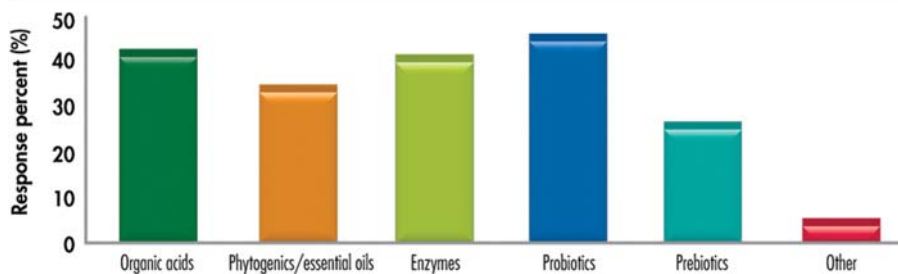
Source: WATT Global Media



Survey participants cite the stress of high feed additive costs as being the greatest challenge to their feed formulation program. However, beyond the feed, respondents fear implementation of a holistic on-farm management program will pose the greatest challenge. WATT Global Media

Additives used to replace AGPs

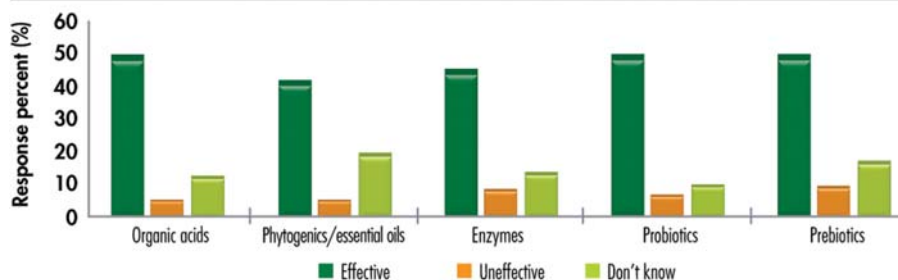
Source: WATT Global Media



Organic acids, enzymes and probiotics ranked as the most popular feed additives used for AGP replacement. WATT Global Media

Efficacy of feed additives as antibiotic replacement

Source: WATT Global Media



Most respondents report having experienced the best results from probiotics (50 percent) and organic acids (49 percent). Availability and experience may sway these numbers. For example, nearly one-fifth of respondents "don't know" about the efficacy of phytogenics/essential oils (19 percent) or prebiotics (17 percent) WATT Global Media

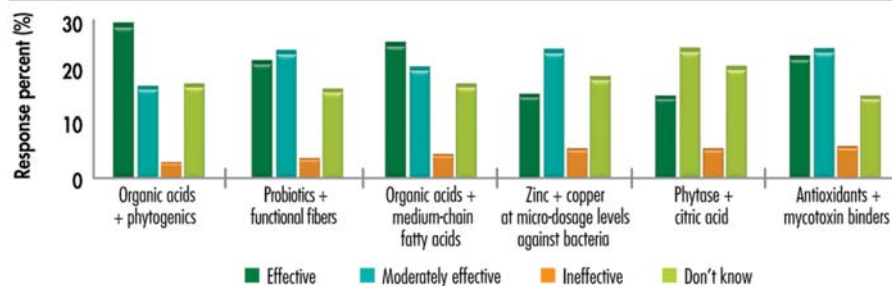
been using to eliminate or reduce antibiotic usage and their effects.

Probiotics were the most popular (46

percent) animal feed additive for replacing AGPs. Organic acids (43 percent) and enzymes (42 percent) also ranked >>

Effectiveness of additive combinations for AGP replacement

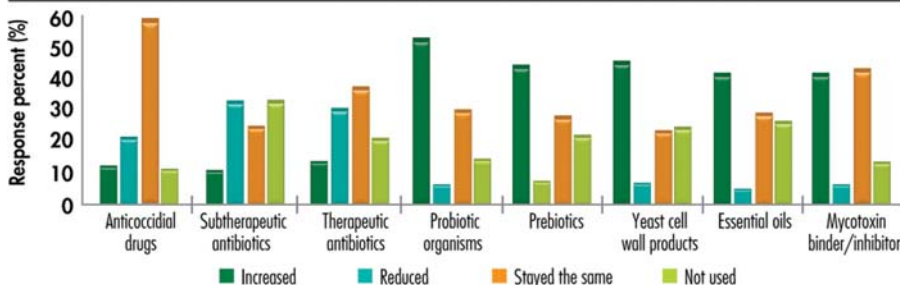
Source: WATT Global Media



Forty-four percent of survey respondents report using combinations of feed additives to replace antibiotic growth promoters (AGPs). WATT Global Media

Characterization of additive inclusions in poultry rations, 2016-17

Source: WATT Global Media



The use of anticoccidial drugs will largely remain the same (60 percent) while the use of sub-therapeutic antibiotics decreased or were eliminated completely. Across the board, feed additives used to promote animal health will increase in 2017. WATT Global Media



>> high. However, in terms of efficacy, probiotics and organic acids nearly tied for effectiveness in attaining the desired effects. That's not to say respondents knew about or had used the other additives types. For example, respondents cited they knew the least about the efficacy of phytonic feed additives (20 percent) and prebiotics (17 percent).

Additive combinations offer solutions

Forty-four percent of survey participants report using feed additive combinations to achieve the desired results in their AGP replacement strategy.

According to 30 percent of respondents, the combination of organic acids and phytonic feed additives produced the best synergistic effects. Next, 26 percent report finding positive effects combining medium-chain fatty acids and organic acids.

Nutrition & Feed Survey at a glance

The editors of WATT PoultryUSA, Industria Avicola, Poultry International and Feed International surveyed 364 people producing and using poultry feed worldwide. The survey sought to define the feeding and external trends shaping these businesses during the past 12 months. The survey was conducted in English and Spanish.

Participants included:

Nutritionists: 27 percent
Consultants: 16 percent
Veterinarians: 10 percent
General administration: 9 percent
Poultry farm owner/grower: 9 percent
Marketing and sales: 9 percent
Live production management: 8 percent
Feed mill/plant operations: 5 percent
Quality control, purchasing agent, processing management/other: 7 percent

Responses from:

Latin America: 32 percent
United States/Canada: 18 percent
Asia/Pacific: 17 percent
Europe: 15 percent
Africa: 14 percent
Middle East: 4 percent

Sectors:

Feed manufacturing: 18 percent
Consultant/veterinarian/nutritionist: 17 percent
Broiler production: 17 percent
Manufacturing/distributing feed additives: 10 percent
Egg production: 9 percent
Breeder farm/hatchery: 8 percent
Premix manufacturing: 6 percent
Turkey/duck production: 6 percent
Poultry processing: 2 percent
Other: 7 percent

Save the dates

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FIAAP 

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VICTAM
International 2019
FIAAP 

12 – 14 June 2019 · Cologne, Germany

**The world's largest
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Visit www.victam.com for more details



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Bastak's new NIR grain analyser

With more than 40 professional staff and over 17 years of experience, Bastak laboratory instruments and flour improvers meet all your needs for a complete laboratory solution with its 28 well done instruments, and will continue to have its new instruments in the near future which will be beyond expectation. Bastak is the Turkish export leader in the sector, exporting to more than 65 countries around the world.

Bastak's R&D department working day and night for developing and improving every single point of our instruments, we are choosing our spare parts from the highest quality and most well-known around the world.

We are ready to promote to valuable customers our new BASTAK NIR instrument DA 9000.

Some specifications: It can analyse grains

without grinding and also powder products such as 20 seconds. The instrument's program already includes different type of products such as wheat and wheat flour. It is possible to load different grain product types in to the program. It can make protein, moisture, ash, gluten and sedimentation analysis. There is no need to



use any chemical during the analysis.

The NIR DA-9000 measures between the waves lengths of 908-1694 nm. It is portable and can be used at field or laboratory. The instrument has a heavy duty rechargeable build-in battery. There is no need to purchase different devices for flour and wheat because it can make analyses by replacing only sample container for grain products and powder products.

It makes data exchange with the computer by means of 2.0 USB input. The liquid cooling fan system allows the analysis at the constant temperature. It has 10.1 inch sized and 1280x800 pixel resolution touch-screen. The outside dimensions of the device are 430x420x410 mm and its net weight is 12 kg. The instrument is powered by 220 V or it can be charged and used.

BIOMIN Digestarom® DC – The Feed Converter with Biomin® Duplex Capsule

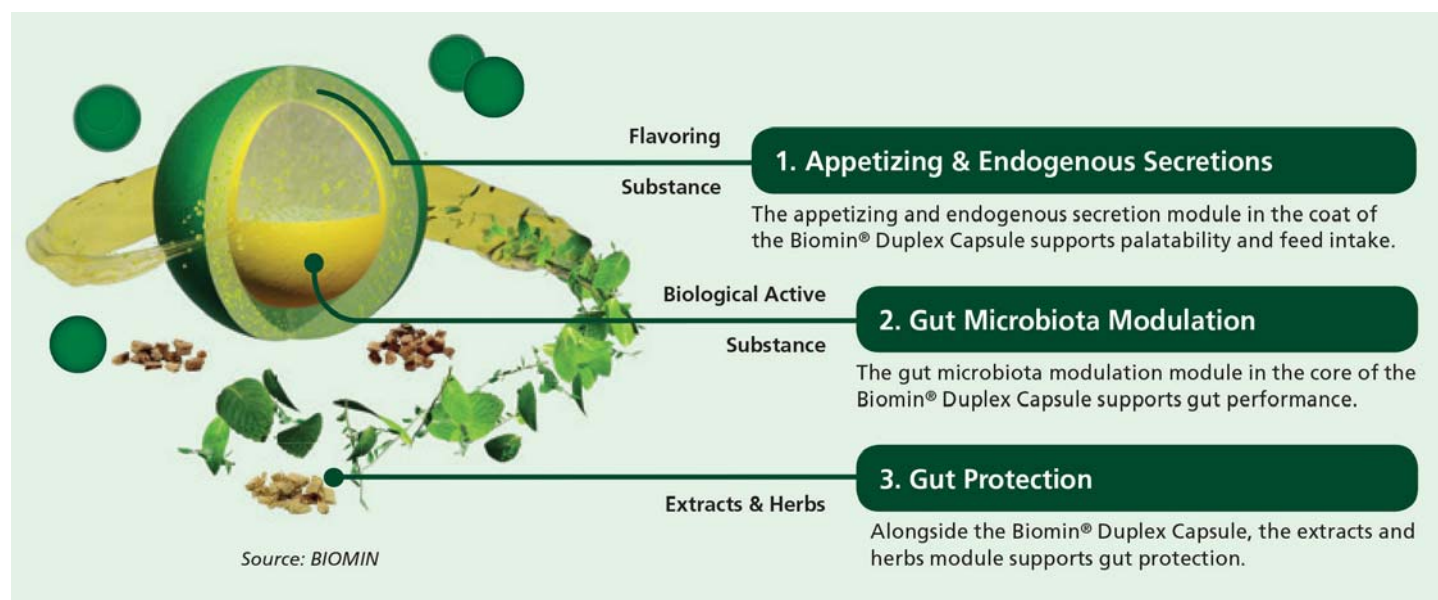
Digestarom® is the phytogenic product line of BIOMIN, a world leader in gut performance management, supported by 30 years of research and development.

Digestarom® DC – the next generation product line – contains the latest

proprietary essential oil encapsulation technology for performance enhancement and feed conversion.

BIOMIN has developed a unique encapsulation technology providing essential oil actives in the Biomin® Duplex Capsule.

With a clear, documented mode of action and an advanced formulation based on three modules, Digestarom® DC results in improved palatability, enhanced digestibility, reduced intestinal challenge, better animal product quality and improved animal welfare.



Dinnissen opens Indonesian office to better serve the Asian market

Dinnissen Process Technology, with offices in the Netherlands and Germany, has recently set up an office in Indonesia, near Jakarta at Java.

Java forms the economic heart of Indonesia and is part of the plan of the government of Indonesia to make Indonesia one of the 10 biggest economies of the world by the year 2025. In general, Asia as a continent has experienced

impressive economic development in recent years and is therefore a territory of great interest to Dinnissen. It shows a large market potential for selling mixers, hammer mills and vacuum coaters in various industries such as food, feed and pet food.

Perry Konings, Commercial Manager of Dinnissen Process Technology, explains. "With opening the Dinnissen Asia office in Indonesia we take an important step in the

direction of further internationalisation. During our current sales projects, we realised that in order to cover the Asian market better we would need to open a dedicated office in this part of the world." Dinnissen expects to even better respond to market specific questions with opening the Dinnissen Asia office.

For more information visit our website: www.dinnissen.nl.



CPM ASIA introduces Lineator and RSM to Pellet Mill

CPM Lineator makes it possible to adjust the rollers towards and away the dies without having to stop the pellet mill, and open the pellet chamber. This way, the Lineator makes it possible to start and stop a pellet mill in an efficient way.

The accurate positioning of the rollers during the production process provides the pellet mill operator with the means to manipulate the pellet quality as required.

By integrating Automatic Remote Roll Speed Measurement (RSM) to Lineator, it allows rolls adjustment automatically based on the roll speed to make changes before choke occur and achieve precise roll gap control for maximum pellet quality throughput, minimum energy consumption and component wear.

For further information please visit our website at www.CPMASIA.com.

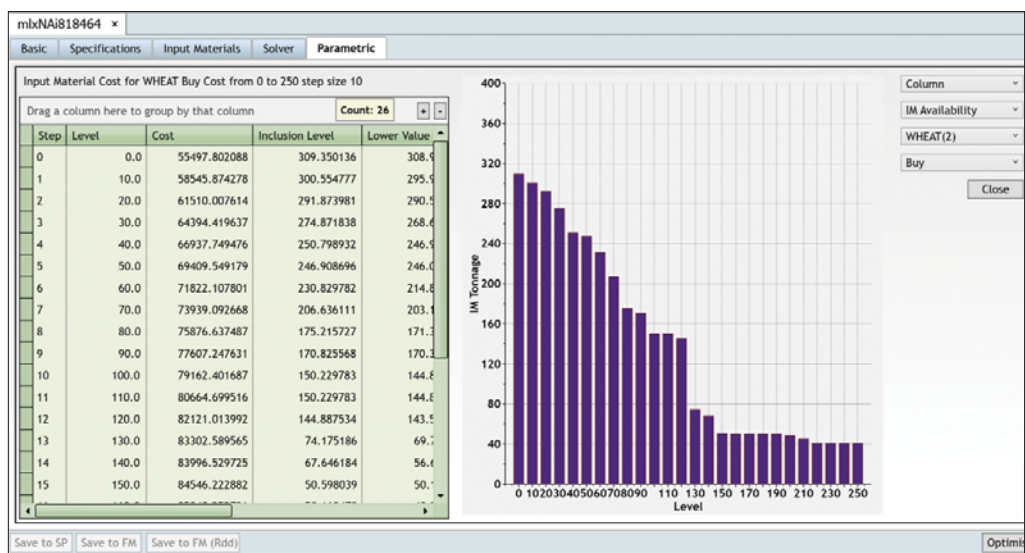


Format Solutions – Expertise in nutrition and formulation

Format Solutions offers a class-leading, integrated suite of software products for formulation, manufacturing operations and a range of other nutritional needs.

We will be attending VICTAM Asia 2018 following the launch of iNDIGO™, our next generation formulation tool. Come and see how iNDIGO™ will bring extra value to your business. In addition the latest release of Pennant Mill Manager™, will be exhibited, along with other solutions.

Format Solutions combines deep expertise in nutrition and formulation, with a broad global reach, serving customers in nearly 100 countries. Format Solutions has a continuing program of innovation and investment. The focus is on providing its customers with software and services that keep pace with a rapidly changing future.



Hydronix launches 2 new digital moisture sensors for Animal Feed, Grain, Rice and Liquids

With an increasing demand for our technology to measure moisture in the bulk solids and liquids sectors, Hydronix is delighted to announce the launch of two brand new microwave moisture sensors. Using our already proven digital technology, our new sensors are manufactured from food safe materials and have been designed specifically for use in Animal Feed, Grain, Rice, Nuts and Liquids.

Hydro-Mix HT

The Hydro-Mix HT is a high temperature sensor that will measure moisture in materials that have a process temperature of up to 120°C. This makes it ideal for installation before or after dryers or in mixing systems. Typical applications include animal feed production, rice and grain processing or other similar applications that need to control moisture in high temperature materials.

Hydro-Mix XT

The Hydro-Mix XT is a digital moisture sensor that has measurement modes that optimise results in materials such as grain,

rice and other similar materials. This sensor has an external seal enabling it to be installed in dusty or liquid processes or applications, from 1 Bar Vacuum to 5 Bar pressure.

Both of our new sensors, unlike other systems available in the market, comprise a single unit that contains all on-board functionality such as signal processing, smoothing and averaging. These sensors come with fixing plates that makes them easy to install flush with the internal wall in drying, ducting, conveying and mixing systems.

All Hydronix sensors are designed for use in flowing materials with readings being taken 25 times per second as the material passes across the ceramic sensing face. With Digital Inputs/Output, a choice of measurement modes, free configuration and calibration software and a global sales and support network, Hydronix is already the supplier of choice for many OEM equipment manufacturers, system integrators and end-users.

Please visit our website for further details: www.hydronix.com



Top picture: Hydro-Mix HT
Bottom picture: Hydro-Mix XT

Van Aarsen – The vital link to your feed chain

Through 68 years of experience and being exclusively involved in feed milling, Van Aarsen has built-up a broad knowledge and wide experience in the compound feed industry. With our engineering and project management capabilities we are able to carry out feasibility studies, to design and construct feed milling projects and modernize or extend existing installations with a great diversity of high quality innovative machinery.

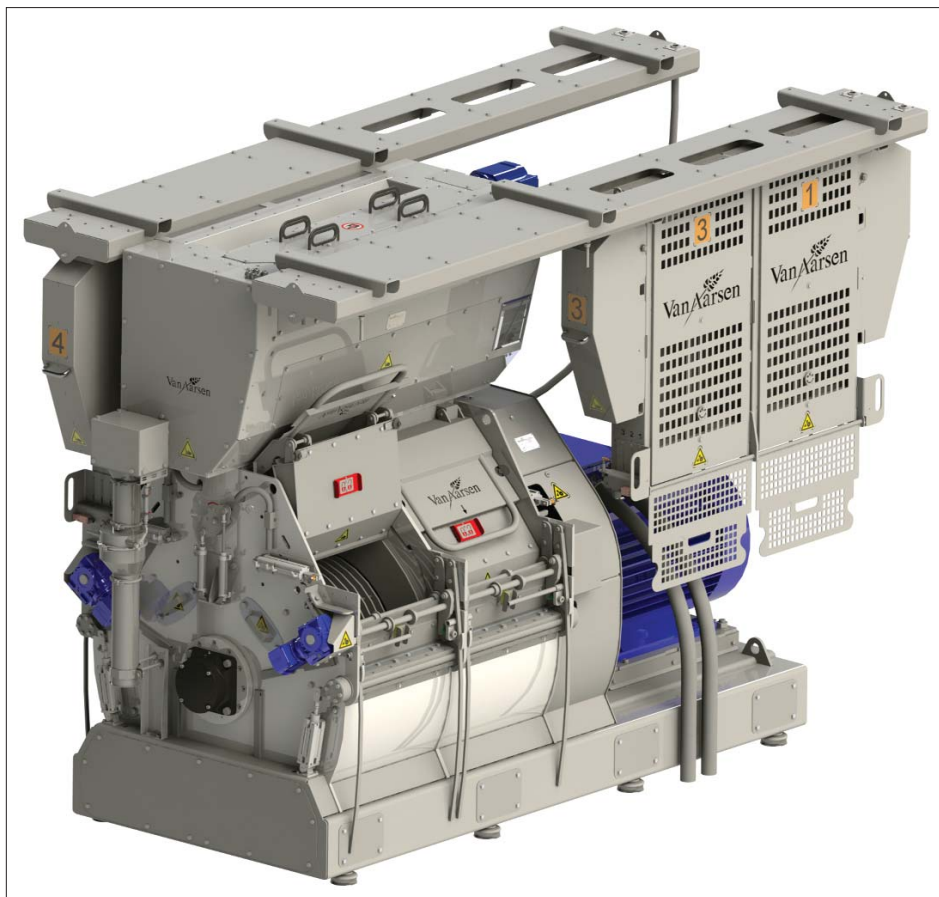
GD hammer mill with automatic screen exchange and new feeding device. A complete concept in grinding

Van Aarsen machines are developed to lift production and lower operational costs with focus on minimizing maintenance and energy consumption and maximizing feed quality and ease of operation.

During the VICTAM Asia 2018 we will present the GD hammer mill with the automatic screen exchange and awarded feeding device. A complete concept for high quality and flexible grinding.

For more details visit www.aarsen.com.

Right: Van Aarsen Hammer mill with new feeding device and automated screen exchange.



Nutriad highlights additive solutions

Multinational feed additives producer Nutriad, headquartered in Europe, was established more than 50 years ago. Through organic growth and selective acquisitions Nutriad has grown to be a global leader in specialty feed additives solutions for enhancing performance and promoting health in livestock and aquaculture.

Sales managers and technical experts from Asia and Europe will be available at the Nutriad booth to provide insight in their product programs – Mycotoxin Management; Palatability; Digestive Performance; Preservation – research and applications.

At Nutriad, it is believed that it is possible to drastically reduce the use of antimicrobial growth promoters

(AGPs) in the animal production systems through an integral approach. The versatility of Nutriad products allows feed producers to reduce the use of antibiotics while ensuring that their protection against pathogens remains robust.

Nutriad suggests a holistic animal management approach to reduce antimicrobial resistance (AMR) on animal and human health, such as appropriate treatment, strict control of antimicrobial agents, early clinical and microbiological diagnosis, and implementation of strict animal production standards.

Recently, Nutriad has taken one step further on the development of botanical compounds to improve gut health by

balancing the intestinal microbiota.

This new scientific based finding was introduced at the 5th Symposium on Poultry Intestinal Health (IHSIG2017), organized by the Intestinal Health Scientific Interest Group. More than 400 participants gathered in Bangkok to discuss the most advanced concepts and techniques in the field of gut health. As a proud silver sponsor of this industrial event, Dr. Wei Wang, the Technical Manager of Nutriad APAC, gave a presentation titled Quorum Sensing as a tool to select botanical compounds to improve broiler performance.

For more information about the company and its products please visit www.nutriad.com.

Meet & Greet: Business development manager Oksana Titova joins the Victam International BV team

Victam International is pleased to announce that they have hired Oksana Titova (pictured right) as their new Business Development Manager.

In her role, Oksana will be responsible for our customers in the German speaking countries. In the past, this position was filled by Wolfgang Meinert, who has now retired. We thank him for all his efforts for our company for so many years!

Victam International BV is not a new company to Oksana as she has worked as a Victam consultant for the Russian speaking countries from 2006 and which she will continue to do in her new role. Furthermore, she will be responsible for the business matchmaking program and other business developments.

Oksana brings a lot of experience in the

animal feed industry with her. She has participated at the Victam and other agricultural exhibitions in different countries for more than 20 years and she has worked as a Russian agent for Dutch production companies in the feed and agricultural industry. She has sold feed and premix equipment, specialised (feed) semi-trailers, but also livestock. She has a Doctorate of philosophy in Economics and has also studied as an Export Manager and legal Russian/Dutch interpreter. She speaks German, English, Russian and Dutch.

For details about all that's happening at Victam International visit www.victam.com.



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Victam Foundation announces new board members

The board of the Victam Foundation is proud to present two new board members: Ruud Tijssens of Agrifirm and Leo den Hartog of Trouw Nutrition.

Ruud Tijssens

Ruud Tijssens (pictured below) was born in Tilburg in 1963. From 1991 until 2001 he worked at the Dutch dairy company Mona. As from 2001 he was General Director at CCL. In 2007/2008 he became director R&D and CSR of CHV-LBB.

After the merger between CHV-LBB and

Agrifirm in 2010, Ruud Tijssens is working at the Dutch based Agrifirm Group as Director Corporate Affairs, strategic R&D and CSR. Since September 2017 he acts as Director Public & Cooperative Affairs.

As of 2011 he is Chairman of the Taskforce Sustainability of FEFAC. Since 2012 he is Chairman of a research consortium from Dutch Feed Industry, Wageningen UR and the Dutch Government. From 2013 till June 2017 Mr. Tijssens was appointed President of the European Feed Association FEFAC.

given every two years to a person for his or her contribution to the animal feed and additive industry.

Den Hartog's extensive experience in animal production is reflected in over 450 scientific and applied articles and seven books as author or co-author. To date, he has given more than 600 lectures in over 35 different countries. He has also been chairman of Dutch trade missions on behalf of the Ministry of Agriculture, Nature and Food Quality to China, Taiwan, South Korea, Brazil, Argentina, Chile and South Africa.



Leo den Hartog

Leo den Hartog (pictured right) is director of R&D at Trouw Nutrition and part-time professor in Sustainable Animal Nutrition in Production Chains at Wageningen University. It was from this same university that den Hartog graduated in Animal Sciences in 1978, and where he obtained his PhD on the relationship between nutrition and fertility in gilts and sows in 1984.

In 1989, den Hartog received the Henneberg Lehmann Award from the University of Göttingen, Germany. In 1999, he accepted an honorary PhD from the University of Kaposvar, Hungary. In 2014, he was given the Molenaar Award from the Animal Nutrition magazine in the Netherlands and Belgium. This award is



In Memoriam: Hans van Vliet

Recently I received the sad news, that at the age of 83, Hans van Vliet had passed away. In the late sixties Hans joined, on behalf of CPM, the Victam Technical Advisory Board (TAC). His great knowledge of feed technology was invaluable as was the useful advice regarding the future and profile of Victam exhibitions. Hans enthusiastically supported the various conferences that Victam arranged/organized and was always on hand to give sound advice regarding the conference programmes, their subjects and speakers; many of the latter coming from the extensive network of industry executives that Hans compiled over the years from within the feed industry and the animal feed institutes worldwide.

In 1998 Hans joined the Board of Victam International and only a year later he became President of the Board and in fact was the first President not to come from the feed industry, but from a supplier. Hans was one of the best presidents Victam ever had, he was an excellent chairman at the board meetings, was diplomatic, sincere, loyal and a great representative of Victam

at many international events. He was a learned person with great interest in culture, the arts and politics. I will always remember him as a friend to whom you could turn to for help and advice, as well as being a gentleman. He retired on 1st of July 2002. Until recently Hans attended our annual board meetings and he also visited our shows in Cologne.

Hans leaves behind his wife Joan, two children and four grandchildren. Victam International and the Victam Foundation have lost a great and inspiring friend.

Henk van de Bunt, Member of the Board of the Victam Foundation, Former President of Victam International, Past General Manager of Victam International



The VICTAM Foundation dates back to 1964 and was originally founded to organize a trade show for suppliers to the animal feed and related industries. These became the famous VICTAM exhibitions.

In due course the foundation widened its scope of activities to promoting the international feed, grain and biomass industry in general. These activities can adopt various forms, such as the organization of exhibitions, conferences, student exchanges, publishing, support of research projects and institutes, and contacts with and support of relevant associations.

The VICTAM Foundation owns 100% of the shares of VICTAM International BV, the organizers of the VICTAM exhibitions.

On the next few pages you can read about some of the projects the Foundation is involved in. For more information you can also visit www.victamfoundation.com.



Home Office compliant metabolism cages for poultry feed evaluation studies

SRUC (Scotland's Rural College) is a widely respected higher education institute dedicated to producing specialist research, delivering high quality education and providing comprehensive consultancy services in the rural sector within the UK and beyond.

SRUC's Monogastric Science Research Centre (led by Prof. Jos Houdijk) is a focus for the College's work on pigs and poultry, in particular bringing together vital research on nutrition.

The most appropriate way of assessing the nutritional value of feedstuffs, or interventions affecting the nutritional value, is by feeding either known quantities of feed or digestibility-marker enriched feed to birds or growing pigs.

The gold standard equipment used for such assessment of nutritional value is the raised-floor cage, where samples can be collected in the absence of interference from bedding intake.

Traditional raised-floor cages no longer meet UK Home Office requirements. Therefore, SRUC set out to refurbish this facility accordingly, which resulted in a mobile, modular system that is EU directive compliant for birds. SRUC is grateful to VICTAM Foundation for sponsoring this activity, through which we will continue to serve UK, EU and world-wide feed industry with robust and much needed up-to-date feedstuff nutritional value data.

Picture right: © UNO Roestvaststaal BV



Co-financing for adaption control system dosing weigher at Aeres Training Centre International (formerly PTC+)

In the feed mill of the Aeres Training Centre, the dosing weigher DW2 was replaced in the spring of 2017.

For this project the financing for the execution of the "hardware" was already fixed. The hardware in this respect means the weighing scale, dosing augers etc. for integration in the production plant of the Aeres Training Centre.

It was also necessary to connect this installation with the existing control system of the feed mill and with the plant visualisation. For this connection an order was submitted to a contractor, which is

specialised in process automation.

VICTAM has financed this investment as support to the continuation of the feed mill of the Aeres Training Centre in order to maintain the courses and training programs. The students are often operators and nutritionists.

On the drawing the new dosing weigher is showed, complete with dosing augers. The weigher is covered by a transparent housing in order to give the opportunity to look at the system during operation.

Picture right: © Aeres Training Centre



Breaking behaviour of diet ingredients, equivalent particle size and its relation with animal performance

Dr A.F.B van der Poel, Wageningen University & Research, Department of Animal Sciences, Animal Nutrition group, Wageningen, The Netherlands

As a result of particle size reduction of dietary ingredients in the animal feed industry, it has been established that analysing the size of particles is not sufficient to explain differences in the digestibility or growth performance of animals. A better understanding the breaking behaviour of various feed ingredient and the ability to describe this behaviour via mathematical models is, therefore, of paramount importance to improve animal performance. Such model relating animal in vivo parameters to breaking behaviour of feed ingredients can then be used in the optimization of the milling process.

This research into breaking behaviour of ingredients and the equivalent particle size is very innovative and of great value for the international animal feed industry. Moreover, the suppliers of feed mills and devices for particle size reduction of feed materials will benefit from the results of these studies. By understanding the relationship between the equivalent particle size with ileal digestibility

data in pigs and poultry for dry matter, crude protein, crude fat and carbohydrates, the formulation of complete diets can be more precise in the future.

Finally, the suppliers of equipment for the grinding of feed ingredients and pelleting of diets will be able to fine tune their processes to the desired feed quality physical requirements. In addition to the process of pelleting, this also applies for the extrusion processes in fish and pet feed manufacturing.

In a forthcoming PhD project, a literature review will be written and published to obtain a clear picture of the relationships between nutrient digestibility and particle size in diet ingredients for pigs and/or poultry.

A number of technological experiments will be conducted to establish the effect of grinding conditions on the particle size distribution and equivalent particle sizes of the resulting ground materials. A precise analysis of the breaking behaviour will be

Thomas van der Poel, Wageningen University.



executed and data analysis will analyze the size and further derivative physical quantities. A new mathematical model will be established that better describes breaking behaviour as related to physiological effects in vivo.

Finally, a better predictability of nutrient digestibility from the physical data of ground ingredients will be examined in pigs and/or poultry.

New ways to evaluate foods for our companion dogs and cats

Dr.ir. G (Guido) Bosch, Wageningen University & Research, Department of Animal Sciences, Animal Nutrition group, Wageningen, The Netherlands.
You can reach dr. ir. Bosch for more information via guido.bosch@wur.nl.

The health and longevity of pet dogs and cats is maintained by the quality of the foods their owners provide. The foods need to contain all the necessary nutrients, have an excellent palatability as well as being safe and easy to use. Currently, pet foods are evaluated with the assistance of 'kennel' dogs and cats. The latter is of increasing ethical concern in our society and one can question in how far they

represent our active, modern day dogs and cats who live with their owners.

This 4-year research project aims to develop 'in-house' tests in which owners and their pets evaluate pet foods together with researchers. The new test protocols will be evaluated for scientific rigour and made available world-wide to enable development of quality pet food products in collaboration with willing owners and their pets.

Companies interested in supporting the development of these science-based and ethically acceptable protocols are welcome to contact the researcher team of Wageningen University and Utrecht University.





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- Feed production technology • Packaging • Energy efficiency
- Auxiliary equipment

●●● What's on show at FIAAP Asia 2018?

- Ingredients • Additives • Formulation • Laboratory equipment
- Quality control

●●● What's on show at GRAPAS Asia 2018?

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

●●● Industry conferences

- FIAAP Asia Animal Nutrition Conference 2018 • Petfood Forum Asia 2018 • Aquafeed Horizons Asia 2018 • Proagrica Feed Efficiency Conference Asia 2018 • GRAPAS and Global Milling Conference Asia 2018 • GMP+ Seminar

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- Thai Feed Mill Association
- The Feedstuff Users Promotion Association
- The Animal Husbandry Association of Thailand
- Thailand Convention and Exhibition Bureau

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