

Animal Nutrition Industry Senior Executive Outlooks for 2022

Simon Duke, Feedinfo Editor in Chief

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INTRODUCTION



The "Animal Nutrition Industry Senior Executive Outlooks for 2022" report is a collection of industry views addressing some of the major trends and challenges faced by the animal nutrition sector today. The report also sheds light on various risks and opportunities companies may have to deal with in 2022 and beyond.

"Animal Nutrition Industry Senior Executive Outlooks for 2022" is a compilation of Feedinfo INSIGHT articles which were published between 13 and 22 December 2021 on

www.feedinfo.com. The articles were based on a series of interviews conducted with 17 animal nutrition industry company senior executives in November 2021.

The report provides a focus on the digital working environment and the race to new technologies; M&A; Mitigating supply chain risks and the influence of China on global markets; animal welfare discrepancies; environmental sustainability and communicating the industry's efforts; and working together on a new Netflix documentary series to help change how the sector is perceived.

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2



CONTENTS

Introduction	2
Participants	4
 The Animal Nutrition Sector's Hybrid Workplace – The End of the 'Zoom Boom'? 	5
Digitalization Accelerating in the Animal Nutrition Industry	10
M&A – What is Attracting Investor Interest and High Valuations?	15
 Anticipating Future Demand and Mitigating Supply Chain Risks – Animal Nutrition Industry Senior Execs Share Opinions 	19
 Reflecting on How China's Influence on the Global Animal Nutrition Sector Can Potentially Be Reduced. 	25
Consumers vs Industry – What is the Reality of Animal Welfare?	30
Animal Nutrition Industry Needs to Be More Vocal as Sustainability Work Continues	36
 Coming Soon on Netflix? – Animal Nutrition Industry Senior Execs Rally and Pitch New Documentary Series 	42
What is Feedinfo?	48





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The Animal Nutrition Sector's Hybrid Workplace – The End of the 'Zoom Boom'?





INSIGHT: The Animal Nutrition Sector's Hybrid Workplace – The End of the 'Zoom Boom'?

13 December 2021 – The past 18 months have shaken up everything and everyone – including CEOs and senior leaders who were already trying to transform the way their companies worked back in the pre-COVID-19 days. Now, with human capital issues higher on their agendas than ever, we can witness an appetite at executive level to make changes as part of transitioning out of a remote-only model.

Earlier this year, Deloitte asked over 3,600 senior leaders what they plan to do about the transition, and 61% said they're focused on reimagining work, looking at the combinations of people and technology it will take to achieve optimal performance and employee wellbeing. Like most other aspects of the pandemic, working from home hasn't been an equal experience for everyone.

Today, most companies have either implemented, or are planning for, some kind of hybrid work model that combines in-office and remote work. However, we can all agree that we are all still trying to figure this out and the path to finding a new "normal" workplace won't happen automatically. On top of this, with the high number of infections still occurring globally and new variants like Omicron coming into play, it is evident that the pandemic is not over yet.

With this in mind, we asked senior executives of leading animal nutrition companies how they envisage the operating and management of businesses in the future. In other words, is the so-called 'Zoom Boom' fading away? Spoiler alert: it's not!

First of all, it is important to say that animal production is a primary sector whose output feeds the world. The lion's share of its workforce is involved with manual work, so the 'Zoom Boom' applies less to them. As International Feed Industry Federation (IFIF) Chairman, **Ruud Tijssens**, says: "Looking at the feed industry as a whole you have a lot of frontline essential workers that cannot work remotely."

"Our global food system has been incredibly resilient thanks to the people who show up to work every day with courage and commitment," adds **Ruth Kimmelshue, Sr. Vice President, Cargill Animal Nutrition & Health**.

Lisa Deverell, President, Purina Animal Nutrition, also emphasises this point: "The majority of feed industry employees are plant, production, and transportation employees who, to this day, remain on the floor and on the road, ensuring manufacturing is not disrupted and customers continue to be serviced. I don't see this aspect changing much."

But back to the home office space – an environment which worked quite well in general during the pandemic, in the views of the senior executives interviewed. All deliver positive accounts and share their visions for office-based employees.

Stefaan Van Dyck, President of Kemin Animal Nutrition and Health, EMENA, looks at where things started: "The global pandemic forced us to completely change our way of connecting and engaging with the market and our customers. We didn't have a choice; we had only digital communication channels to use during the pandemic."

IFIF's Ruud Tijssens adds: "Even before the pandemic a lot of day-to-day work in the industry was via phone and video conferencing, and this has only increased in the last two years. What the pandemic has shown is that there are many meetings that can be completed via



Zoom and other platforms, and it is possible to work remotely from home and still collaborate very effectively."

"During the pandemic, we found that our traditionally office-based teams could work just as effectively – and in some cases, more effectively – in a remote environment," continues **Purina Animal Nutrition's Lisa Deverell**.

Dr. Mark Lyons, President & CEO of Alltech,

concurs: "We have embraced new means and methods of communicating and connecting virtually. This new technology is enhancing our ability to connect with global team members and has aided us in supporting customers even more quickly and effectively."

A further assent comes from **Dick Hordijk, CEO of Royal Agrifirm**: "In terms of efficiency, the hybrid system really works, and therefore it's my strong belief we will never go back to full time office presence."

"Virtual business operations and events have been valuable in keeping us connected and productive since the onset of COVID-19," goes on to say **Pierre-Joseph Paoli, President of Additives, Ingredients and Amino Acids at ADM Animal Nutrition**. "In terms of business agility, the necessary technological shift has shown the industry new paths to convenience and efficiency."

Online interaction via webinars or virtual meetings have indeed proven to be a valuable addition for animal nutrition industry customers.

As **Dan Meagher, President and CEO of Novus International**, says, the pandemic forced change in how we do business, but also provided "more awareness of the value of our time and our customers' time."

"The pandemic has also changed the way we look at in-person meetings – are they critical?

We know that social interaction is critical for collaboration, but tools like Zoom and Microsoft Teams allow us to be social within specific meetings or timeframes, which frees up time for creative or strategic thinking and planning," he adds.

"For customers, the 'Zoom Boom' has brought a degree of convenience too," says **Saskia Korink, CEO of Trouw Nutrition**. "Our whole industry is digitalising faster than ever, deploying innovative ways to bring customer care to a new level.

"I don't think we will ever go back to how things used to be. It has opened doors to new ways of communicating and sharing information and brought efficiency gains in the form of reduced costs and travel; enabling people to 'meet' no matter where they are in the world," adds **Pauel Fokin, Vice President at Danisco Animal Nutrition**.

Beyond the transformation brought to interactions with customers, Korink, Fokin and the other senior executives all agree on the convenience brought to employees, and that going forward, a hybrid way of working will become the 'new normal'.

"We have found that even while working remotely, people remain productive and able to collaborate and effectively share information – as long as they enjoy a certain level of flexibility and still feel included among their teammates. In the process, some have even gained a better work-life balance," **Trouw Nutrition's Saskia Korink** says.

Ivo Lansbergen, President DSM Animal Nutrition and Health, adds: "Employees across industries appreciate the flexibility that working from home has brought, even if there have also been challenges, of course. Looking ahead, I think we will see hybrid working practices becoming more and more the norm,



as it increases productivity, promotes work/life balance, and improves employee experience. So instead of thinking about where we work, we want to look at the work we need to do. If technology enables some or all of your tasks to be done effectively from anywhere, then the idea of the workplace changes."

Kemin's Stefaan Van Dyck goes on to say: "For most people, this digital interaction offered a lot of possibilities: no time-consuming travel, quick scheduling of meetings with different counterparts, etc. Therefore, I am sure the hybrid way of working and connecting is here to stay and will be dependent on the people around the (virtual) table, the content being discussed and the importance of a face-to-face connection. We will need to be agile and flexible, adapting our way of connecting to our audiences' needs."

Taking the idea a step further, **Purina Animal Nutrition's Lisa Deverell** says: "Flexibility and a hybrid option will be critical to attracting and retaining talent, especially in this labour-strapped and competitive environment. That said, along with flexibility comes the critical need to maintain the culture that makes a company special and maintain the trust and shared sense of purpose that is built among our teams. And that trust is oftentimes best cultivated in-person."

What has become increasingly evident over time is that remote working has, for many, its limitations and that in-person interaction cannot be underestimated. As human beings, we instinctively crave connection and community. Technology in some ways is getting in the way of this essential bonding. Finding a happy medium between in-person and virtual meetings will be critical.

Adisseo's CEO, Jean-Marc Dublanc, explains: "We rediscovered the real value of physical meetings and human relations and the efficiency of communication. Future operations and management will be a hybrid of digital tools and physical meetings. This will evolve when new applications and technologies will be developed but we are confident that human interactions will always be part of this business."

Trouw Nutrition's Saskia Korink looks at the socio/psychological effects of this need for connection. "As humans, we crave interaction.

connection. "As humans, we crave interaction. We've seen how long-term isolation can impact our mental states or even hinder cooperation. As we design the future of work, we need to acknowledge the trade-offs of remote collaboration. In the future, businesses in all sectors will do better by focusing on resourcing humans rather than on human resources – on ensuring people have the tools they need to balance the demands of their work and personal lives and stay productive while maintaining both physical and mental health."

Novus' Dan Meagher adds: "Face to face interactions can be much more effective for problem solving, brainstorming, and presenting. So, we encourage our teams to gather physically – where possible – for those situations. It's important that we get creative as an industry about bringing flexibility to these work environments as well."

"The return to the office reinforced the idea that remote work was a necessity for a time but is not a viable alternative way of working within our culture," Alltech's Dr. Mark Lyons says, recounting his experience. "We believe in the value and importance of being together. Our business is fuelled through personal connections. Creative ideas and collaborations so often begin with a casual conversation. Trust, so critical right now, is created through in-person relationship-building activities. There was a marked difference in energy as our offices became reinhabited. Decisions were being made more quickly, communication improved and there was an increased cross-pollination of ideas across departments."

"People can come to the office to engage with colleagues rather than doing routine



work," adds **Aart Mateboer, Perstorp's EVP Animal Nutrition**. "We see a very similar trend amongst our customers: much more a mix of online and face to face meetings compared to before COVID-19 and when interacting with our customers we follow their preferred way of engagement."

As Mateboer says here, not only do we need the in-person interactions, but so do customers.

DSM's Ivo Lansbergen points out: "From a customer perspective, virtual meetings do have their limitations. We do expect that for customer engagement and events, we will rely more on face-to-face interactions."

"I think this is a critical point, we have seen that face-to-face meetings are actually an essential part to align and build relationships with our feed industry colleagues from around the world. This is sorely missing. We hope it will pick up again soon," stresses IFIF's Tijssens.

Yoram Knoop, CEO of ForFarmers, underlines the importance of visiting farmers on-farm and how that will always remain vital. "It has become clearer that face-to-face meetings and live gatherings are in the long rung essential in an effective way of work," he says.

ADM Animal Nutrition's Pierre-Joseph Paoli

concurs: "Nothing compares to in-person collaboration. Events like SPACE and the Feedinfo Summit have reinforced the quality of interaction and engagement available at live conferences and we hope to continue in-person events in the coming year."

Emmanuel Auer, Head of Animal Nutrition Business Line, Evonik, agrees: "We see and feel the strong desire of our customers for direct personal communication. And we'll do our utmost to increase our presence at customer meetings in 2022 without jeopardising improvements in the current pandemic."

"We expect that we will need to remain flexible - a mix of virtual collaboration when the pandemic (or even after) does not allow for face-to-face meetings, and adherence to strict hygiene regulations," adds Daniela Calleri, Vice President Business Management BASF Animal Nutrition. "The design of internal and external communication processes plays a decisive role here. To be able to pass on information and maintain contact with partners and customers, we will continue to rely on virtual communication. We will be able to meet the existing need for information at least in part in this way if the opportunities for customer visits and customer events are limited. Nevertheless, meeting our customers and partners remains an important building block for us to maintain relationships and wherever possible, we prefer to have direct contact with our customers."

Cargill's Ruth Kimmelshue echoes these comments: "Of course, we look forward to being together and working in person regularly when we can do so safely. But innovation and technology helped us deliver for producers and customers throughout the pandemic and will remain a part of our workplace of the future."

As **Danisco Animal Nutrition's Pauel Fokin** summarises: "It's very much a question of getting the balance right – both for ourselves and our customers. This means being more mindful in our choice of face-to-face meetings and prioritising those that will have the most impact."





Digitalization Accelerating in the Animal Nutrition Industry





INSIGHT: Digitalization Accelerating in the Animal Nutrition Industry

14 December 2021 – Discussing the 'Zoom Boom' in yesterday's article, it is very clear that digital technologies have played a big part during the pandemic in keeping us all connected at the workplace, at home, and with our loved ones. The use of digital technologies in the animal nutrition world never ceases to evolve, reaching new levels again this year. Informed decisionmaking based on digital capacities and data collection keeps on proving to be faster, more precise and more complex, boosting productivity and efficiencies.

We asked the animal nutrition industry senior executives what their digital transformation experiences were in 2021 and how they see the road ahead. One thing for sure, however, is that all senior executives interviewed increasingly see digitalization as a key component of their respective businesses and their companies have carried out investments at all levels and in various kinds of digital solutions.

"We've seen a digital wave building for several years within the animal nutrition sector, and the pandemic really seems to have amplified and accelerated it," sums up Lisa **Deverell**, **President, Purina Animal Nutrition**.

Stefaan Van Dyck, President of Kemin Animal Nutrition and Health, EMENA, says: "The agricultural industry is one of the most quickly accelerating frontiers of technology investment in our economy, so evolving along with it is key. Our entire industry is rapidly evolving into smart and digital agriculture, something which our customers will increasingly demand from us, as well. Data is, and will be, the new gold."

"The impact of digitalization on the feed industry is immense and it is integral to our business," adds **Daniela Calleri, Vice President Business Management BASF Animal Nutrition**. That said, it is still early days for the digital revolution in the animal nutrition sector.

As Adisseo's CEO, Jean-Marc Dublanc, says: "Data science, data management, and artificial intelligence (AI) are still in their infancy and our industry is not particularly advanced in these areas. At the same time lots of new applications and technologies in development are very promising."

Dr. Mark Lyons, President & CEO of Alltech, agrees: "We are only scratching the surface of what is possible within agricultural digitalization."

Pauel Fokin, Vice President at Danisco Animal Nutrition, nods: "What we do know is that if you are trying to raise animals in the best and most effective way possible, embracing digitalization is key and those that don't will eventually be left behind."

This is also applicable to the compound feed producers and farming sectors. As **ForFarmers' CEO Yoram Knoop** illustrates: "Livestock farming is entering the era of digital transformation and the speed of change is increasing."

"We have seen some digital development at farm level already. For instance, dairy farms in the Netherlands can run a fully automated process where extensive data is collected for each animal and direct data connection with their dairy companies. This development will continue," adds Aart Mateboer, EVP Animal Nutrition at Perstorp.

There are also a few hurdles to overcome.

Alltech's Dr. Mark Lyons believes that the digital potential is dependent upon success in three key areas: comprehensive and practical



data collection, the counterproductivity of focussing on disruption as opposed to value creation, and the logistical issue of rural broadband access.

On the latter, he says: "Connectivity is the new electricity, and COVID-19 exposed serious fissures. There is much more work to be done, especially globally. Reliable internet access for all is fundamental to future advancement in digitalization on the farm and in the field."

For **Adisseo's Jean-Marc Dublanc**, however, the main blocking point for a wide adoption is not necessarily the technology but rather "the business model and the value sharing between the different contributors."

"Will we see the development of platforms in our industry like in the mobile phone or the media industry? Maybe... but we are still far from it," he says.

These hurdles aside, the future of digital technologies in the animal nutrition sector looks promising.

"There's no doubt that data-based decision making is going to drive productivity in our industry just as we've seen happen in the human healthcare and technology industries," argues **Novus International's President and CEO Dan Meagher**.

"Digitalization is the future in our industry, as data helps us to monitor, predict and optimise livestock farming and protein supply, as well as animal welfare," highlights **Emmanuel Auer, Head of Animal Nutrition Business Line, Evonik**. "I believe that all three of these make a meaningful difference for farmers. It is time for our industry and our customers to integrate digital tools for livestock farming into their daily routines and consider them as a base for business decisions." "I'm fully confident that digitalisation and data science will unlock tremendous value for all stakeholders across the animal farming value chain in the years to come. Without a doubt, data science in our industry can be optimised further," adds **Ivo Lansbergen, President DSM Animal Nutrition and Health**. "The age of observation, intuition and experience-based decision making will in our view be enhanced by a new component driven by data and digital tools using these data. These tools will further improve the welfare of animals, the environmental impact of farms, the profitability of farmers, and the products bought and consumed by consumers."

"Digitalization will drive new solutions, which are appearing now in the market, but many more are to come. AI expertise is entering companies and will stay there. This will positively impact animal welfare, productivity, traceability and sustainability. Looking ahead, this will increasingly deliver opportunities for further efficiency and new market-oriented products," goes on to say International Feed Industry Federation (IFIF) Chairman, Ruud Tijssens.

"So, what's next?" asks Lisa Deverell, President, Purina Animal Nutrition.

Her answer is: "We think that we're in the very first innings of what precision feeding, nutrition, and treatment will become; all of which requires improved software, wearable technologies and data scientists teaming with nutritionists and researchers in different ways. These advancements will shorten the innovation cycle."

Danisco Animal Nutrition's Pauel Fokin

imagines a future where we will know in realtime which actions to take on a farm or plant to correct deviations even before they occur. "Using AI as a widespread predictor for animal illness, for example, will enable us to offer preventative solutions to help maximise efficiency as well as animal welfare," he comments.



Pierre-Joseph Paoli, President of Additives, Ingredients and Amino Acids at ADM Animal Nutrition, sees a lot of opportunity for digital innovations that can help producers do their jobs more efficiently and effectively. For example, "the feed industry can use advanced digital solutions to access and apply standard measures for analysis that impact our entire sector."

"A digitalization opportunity that I do not see a lot of movement on yet would be the feed and feed additive supply chain. There is very little data integration in that part of the value chain, clearly an opportunity for the future where we can save cost, increase efficiency and reduce waste for all parties involved. Vendor managed inventory is a digitalization driven principle that we see being applied in other industries but not as much in animal nutrition yet," adds **Perstorp's Aart Mateboer**.

Rounding up the multiple opportunities, **Ruth Kimmelshue, Sr. Vice President, Cargill Animal Nutrition & Health**, says: "From selecting feed ingredients and suppliers, to designing and formulating diets, to managing feed mills and feed inventory, technology can make delivery of animal feed and nutrition more effective and efficient. Putting this data and technology in the hands of producers enables faster, more informed decisions to improve their productivity, animal well-being and sustainability."

As the senior executives have alluded to in their comments so far, it will be the sharing of data and the collaborations with customers that will truly make a difference.

Yoram Knoop of ForFarmers points out: "The use of data-driven technologies to support our customers towards more sustainability, healthier animals, higher output and higher efficiency is key. Combining information from various data sources is still a struggle. It requires critical mass of data. Within north-western Europe we see more and more large agricultural players, as well as new entrants, creating platforms to share and collect data."

Novus' Dan Meagher believes this can work by diving deep into the inner workings and sharing information and innovation on both sides. "Thanks to collaboration with our customers and continued advancements in data science, we can identify those challenges faster and make better recommendations," he adds.

Or as **So Young Kim, Head of Animal Nutrition Business Division, CJ CheilJedang**, says: "We strongly believe in data science and trust this will pave the way for the next level of customer engagement. CJ Bio's ultimate goal is to provide real-time information on nutritional value for our customers to decide on purchasing major feed materials in a timely and economical way."

Sharing her company's customer experience, **Saskia Korink, CEO of Trouw** Nutrition says: "We see a strong and growing demand for actionable insights on raw materials composition – as this drives our customers' formulation and feeding strategies. However, this can't be looked at in isolation, as many more factors influence our customers' strategies, such as pricing, weather information and onfarm data. Connecting the dots will be key going forward and will require businesses to collaborate and co-create."

"We simply cannot do this by ourselves. Many forms of data science and analytics are currently too focused on the far future and overlook the gold that is lying in front of us. Descriptive analytics may not sound fancy, but we can learn much from them to help us step up in diagnostics, predictive or even prescriptive analytics. We aim to share and commercialise data for better decision-making at customer level," Korink adds.

"On the commercial front, we're seeing significantly more transactions and interactions occur on digital platforms. Customers and



suppliers want to be able to connect with us efficiently and easily at any time, in any location, on any device. Digitalization is driving that increased convenience and flexibility, both of which will be in even higher demand going forward. All of that data is critical to real-time decision making, especially with massive and unpredictable supply chain disruptions," adds **Purina Animal Nutrition's Lisa Deverell**.

But the work does not stop at customer level. Companies are increasingly reaching out to solution providers from other industries who are specialised in AI and can help capture, share and optimise the use of data.

"Success has one condition," argues **Kemin's Stefaan Van Dyck**. "Look beyond the direct customer to find new customer value spaces. This introduces the need to partner with customers more than just through products, and to look for data-driven partnerships upstream/ downstream within the value chain. The socalled 'ecosystem partnerships' and 'digital platform collaboration' are the keys to success."

"Tech providers from industries outside of our own will definitely help us make this step up: we need to embrace this kind of collaboration, bring the best of both worlds together and start building integrated solutions," says **Trouw Nutrition's Saskia Korink**. "There is value in combining innovative technology from young technology start-up companies with the scale and expertise of larger corporations. This is something I also expect to see more of in 2022."

Alltech's Dr. Mark Lyons also believes that there is a keen interest in innovation for agriculture from those who sit outside of the sector. However, he warns: "They have technical expertise but lack a connection to the farm, and, therefore, their solutions often have fatal flaws. We need to do a better job of linking these innovators or 'outside sparks' to the farm, creating cross-functional teams who can deliver effective solutions."

As an industry we have to collectively put energy in reliable data collection.

"Use the companies that figured this out in their industries over the last 10 years. There are companies that are so smart in generating data, but also in developing tools that can deal with the tough circumstances we see in our sector," argues **Royal Agrifirm's CEO Dick Hordijk**.

"We should get far more obsessed with collecting that data together," he adds. "The rise in data technology will lead to disruption and we need to figure out the data game ourselves or others will. That day will come fast. It might come next year, maybe in five years from now, but it will be disruptive."



M&A – What is Attracting Investor Interest and High Valuations?



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INSIGHT: M&A – What is Attracting Investor Interest and High Valuations?

15 December 2021 – During the global COVID-19 pandemic, most companies in the animal nutrition sector took a step back and reviewed their portfolios, reassessed their strategies, and looked at mergers and acquisitions (M&A) where they saw they had competitive advantages. Buyers have been, and continue to be, on the lookout for businesses that have the right value and correct strategic contribution. At the same time, consolidation in the industry kept going in 2021.

"Generally, the feed ingredients industry is already highly concentrated. Accordingly, except for a few larger deals, we see M&A predominantly taking place downstream in premixing, feed milling and animal farming. A strong financial position remains a prerequisite for such activities and companies with a solid balance sheet will continue to have better opportunities here," explains **Daniela Calleri**, **Vice President Business Management BASF Animal Nutrition**. "But it doesn't always have to be mergers and acquisitions to develop a company. Partnerships are also a way of pooling strengths and making progress."

Or as **Dick Hordijk, the CEO of Royal Agrifirm** puts it: "Animal numbers will come down. The traditional feed industry as we know it is not growing and therefore there will be, of course consolidation. I don't think we should be worried about that because it's necessary to keep efficiency at the right levels."

Interestingly, with the growth witnessed, for instance in the alternative proteins space, we have seen an influx of investment from organisations external to the animal protein supply chain. These investors, primarily private equity funds, venture funds and others, are pouring significant amounts of money into market segments which gain from mainstream buzz.

However, the feedback we are getting from the market at the moment suggests that valuations are very high. So, we asked the senior executives for their thoughts are about valuations in the market generally in light of this phenomenon.

Saskia Korink, CEO of Trouw Nutrition,

comments: "Valuations are indeed high since interest rates dropped globally to unprecedently low levels, which will mean that synergies and strategic fit will become even more important. The fact that transactions still happen at these high valuations demonstrates that there is no shortage of investor interest and capital in the animal nutrition sector."

"Valuations are high thanks to low interest rates, free-flowing capital, and significant consumer spending power but most importantly because the outlook of our industry is optimistic – not only for individual companies but for the industry as a whole. The food system showed remarkable resiliency during the pandemic and that brought the attention of people who eat the food we grow every day and never would've thought of us," adds Dan Meagher, President and CEO of Novus International. "This attention has attracted interest from technology companies who see the possibilities of innovation within the traditional nutrition industry. This investment in ag tech is growing in many aspects, including venture and equity funds."

Pauel Fokin, Vice President at Danisco Animal Nutrition, explains: "Venture capital is always looking for breakout growth. They are attracted by opportunities in the more traditional sector that represents a novel category,



technology or solutions, such as new protein sources, new ways of working or fundamental changes to cash flow and industry efficiencies."

Jean-Marc Dublanc, CEO of Adisseo, says: "Valuations are very high because we are in a growth sector which, on top of this has proven to be very resilient over time including the COVID-19 pandemic. Private equity is indeed investing in the alternative protein sector which appears very attractive but is also very high-risk market segment."

But adds that private equity is also "investigating and eventually investing in the more traditional specialty feed ingredient and animal health sectors."

Indeed, with respect to valuations, differences can be seen between mature and upcoming markets. High multiples are not observed in all markets, notes **Yoram Knoop, the CEO of ForFarmers**.

Pierre-Joseph Paoli, President of Additives, Ingredients and Amino Acids at ADM Animal Nutrition, says: "We must recognise that they are at different levels of maturity. Newer solutions are attracting more investment as the growth potential, and therefore return is better for investors, while the existing business is more about scale and incremental improvement."

Aart Mateboer, Perstorp's EVP Animal

Nutrition, offers his view: "It is true that there are segments that are getting a lot of attention from investors who operate with higher risk profiles and are willing to pay higher multiples. I do not have the impression that for the more mainstream companies the valuations are as inflated as in the alternative protein markets, but indeed demand seems to drive up the price."

Dr. Mark Lyons, President & CEO of Alltech,

also observed slightly inflated valuations due to EBITDA multiples based on reduced costs (SG&A) during the pandemic period, as well as low interest rates flooding the market with cash increasing the values of M&A targets and public firms.

Providing some background, he says: "ESG is a major consideration for many financial firms, so there is plenty of money searching for good stories that satisfy well-intentioned investments. Special purpose acquisition companies (SPACs) have also brought many businesses public without the normal vetting process. Adding yet more fuel to the fire within our sector are these new alternative protein sectors that purport better environmental or health credentials than traditional protein production."

"All of this does give a sense that 3 to 5 years from now we will look back and feel that a lot of money was wasted and lost," he adds. "Good and strong companies must see this as a major opportunity. It is staggering to consider that only 1% of climate finance (which could be as high as \$450 billion in 2021) is being directed to animal protein, especially given the sector's capacity for significant reductions moving forward. This vast underinvestment in animal protein is due to perceived low profitability and high risk, and a corresponding lack of understanding of the benefits associated with mitigation."

We also asked the senior executives what they think the more traditional animal nutrition sector needs to do to attract the interest from these the private equity type outfits more, and if that's in the sector's interest.

Continuing his train of thought, Alltech's Dr. Mark Lyons says: "The financial sector is extremely savvy, and, I would expect, will wake up to the true opportunity within the protein sector and shift funds from overvalued alternatives to businesses that can make immediate impacts by transitioning to more sustainable practices and adopting greener technological approaches. We must counter the existing



perception of the industry with stronger, more consistent and quantifiable messaging that puts agriculture at the forefront of positive climate impact."

Ivo Lansbergen, President DSM Animal Nutrition and Health, has an alternative view: "I wouldn't necessarily say that the animal farming sector is in direct competition with emerging protein production industries. To meet the protein demand of a growing world population and ensure the healthy development of all people, we will need the contribution of all sectors within the protein industry, conventional and non-conventional. At the same time, broadly speaking, the conventional animal farming industry could and should be doing more to limit its environmental impact by better leveraging the technological possibilities that are emerging. Ultimately, improving the industry's sustainability profile will create value for all stakeholders, including investors."

"Our view is that the innovation power of the animal value is not factored in (yet), but I am personally convinced – with the innovation head room and technology adaption – that the muchdiscussed gap in environmental footprint could be significantly reduced," Lansbergen adds.

Royal Agrifirm's Dick Hordijk also highlights that the way we feed our animals will change. By that he means there will be less traditional feed as we have today, but more circular economy feeds, more by-products, and more local proteins.

"I think we should look at redefining the industry, not reducing it to traditional feeds. The world is changing," he comments. "Make sure you focus on those parts of the area of the of the industry that are still healthy. Also, you can look at all kinds of opportunities outside of the traditional space, and in alternative ingredients."

Novus' Dan Meagher agrees: "With the complexity and diversity within agribusiness globally, I believe the agriculture sector is

prime for massive disruption. With a rise in environmental, cultural and regulatory concerns and restrictions, we are all seeking innovation to help solve these pressing challenges. It's our responsibility to seek out and attract investment for the next technologies that will allow this industry to address the emerging social contract between food production and the complexities of feeding a global population."

ADM Animal Nutrition's Pierre-Joseph Paoli goes on to say: "Ultimately, the wider animal nutrition industry must commit to innovation and forward-thinking solutions to stay relevant in the global marketplace. Those who refuse to adapt will be left behind. As for investment strategies, there is no silver bullet to deliver on the monumental challenge of feeding the world's growing population," adding that the investment scope can be broad, covering the human and animal nutrition sectors.

"We [ADM] approach innovation and sustainability from various perspectives, such as precise animal feeding as well as exploring alternate protein ingredients. We believe we can do both – it doesn't have to be one type of protein or another," he explains.

For **Emmanuel Auer, Head of Animal Nutrition Business Line, Evonik**, many of the innovation opportunities applicable to the animal nutrition sector that lie ahead come in the form of data.

"Our industry expects a prosperous future as we have a huge opportunity to provide quality, affordability, and availability of food for future generations. I believe the future of livestock farming belongs to digital and science-based solutions," he argues.

If traditional companies in the animal nutrition industry want to attract capital, for **Perstorp's Aart Mateboer**, the answer is straight-forward: "The basic rules still apply: make sure you have a differentiated offering, a good innovation pipeline and healthy financials."



Anticipating Future Demand and Mitigating Supply Chain Risks – Animal Nutrition Industry Senior Execs Share Opinions





INSIGHT: Anticipating Future Demand and Mitigating Supply Chain Risks – Animal Nutrition Industry Senior Execs Share Opinions

16 December 2021 – Months of COVID-19 pandemic-induced lockdown, travel restrictions and supply chain disruption have demonstrated how resilient companies must be in a crisis, even more so in 2021 when lockdowns began to ease and demand skyrocketed at the same time, resulting in higher prices and an unprecedented difficult situation for global supply chains which weren't prepared.

Much has been spoken and written about global supply disruption in Feedinfo and in other media. In today's article we will not go into detail about the disruption itself, but what we can say is that today operators in the animal nutrition industry are certainly seeing an accumulation of different problems, which have combined to cause huge unpredictability in global supply chains. Companies are wishing for an end to the unpredictability and record-high costs, and are keeping an eye out for any signs of relief.

When looking at today's supply chain disruptions, companies have told us that one of the root causes is not having a precise understanding of the real levels of demand in advance. Customers can be reluctant to cover their needs sufficiently too far in advance, and suppliers may not be willing or have the capacity to produce more ahead of time either.

We asked the animal nutrition sector senior executives how we as an industry can better work together, what we can do to better anticipate future demand and further offset the big 'pressure points' such as freight, raw material and energy costs, labour availability, or even geopolitical issues impacting nations.

First, it is important to highlight that supply chain disruption is not experienced the same way by different companies. In some cases, having a robust global network, a diverse portfolio of vital products, and years of experience in dealing with supply chain nightmare scenarios can help. Yes, size matters.

At the agribusiness giant end of the scale, Cargill Animal Nutrition & Health's Sr. Vice President Ruth Kimmelshue says: "Volatility from COVID-19, political disruption and external weather events can be expected to be the new normal for our operating environment, requiring us to be more agile and focused than ever before. Our job is to keep the food system working, moving food from where it is grown to where it is needed, no matter the global economic circumstances. Cargill is acutely aware of the disruptions taking place, whether as a result of COVID-19, hurricanes/ natural disasters or other causes. Yet the food system remains resilient, and we have been able to address and mitigate supply chain challenges by putting people first, maintaining constant communication with our customers and innovating to meet changing demand."

"A global footprint and holistic view allow us to keep the greatest fears from coming to life: store shelves remain stocked, farmers have markets for their food, food is safe to consume, and animals are fed. Applying this global view and an agile approach kept our customers operational despite supply chain disruptions," she adds.

But whatever the size of your business, you need an efficient and reliable supply chain.

Many of the senior executives interviewed agree that it's always good to stand back and reflect on stock-keeping strategies.

Adisseo CEO Jean-Marc Dublanc explains: "There are certainly supply chain practices that



can be improved to secure supply. In most cases they are related to a balance between securing a regular flow of supply versus keeping the freedom to shift from one supplier to the other."

Pauel Fokin, Vice President at Danisco Animal Nutrition, continues: "What recent events have shown us is that supply chain risks are real, and you simply can't make several months' worth of inventory materialise overnight. As an industry, we need to rethink our stockkeeping strategies to ensure our supply chains are more robust. This is going to mean moving away from just-in-time models, which were not designed to handle the type of disruption we've seen recently, to a policy of holding more inventory throughout the value chain."

And Yoram Knoop, CEO of ForFarmers

adds: "In any environment, reliable forecasting of expected demand is crucial in organising an efficient and reliable supply chain. In this context, it is important to have long-term partnerships, with whom crucial information is shared throughout the supply chain to be able to act and decide in time. For example, when securing supply, it is essential to know in time how much should be sourced at what price."

In the opinion of Lisa Deverell, President,

Purina Animal Nutrition, the customer relationship and communication with both customers and suppliers are critical. "Truly understanding what our customers need and what our suppliers can provide now and what they anticipate down the road is key to foreseeing future demand. While that does not always guarantee the perfect outcome, knowing what potentially lies ahead in terms of demand, and being honest about that, sets everyone up to be as successful as possible in navigating supply chain challenges."

"Over the past 20 months, we've all seen some pretty erratic behaviour, oftentimes driven by rumours of product shortages," she adds. "We'll

first see a rush to stock up, then a desire to draw down, followed by another buying spree. In that light, we do what we can to watch order patterns and filter out ones that appear to be opportunistic and that might draw product away from longer-term customers. Likewise, if we notice that certain customers aren't ordering within historical trends, we might reach out to better understand their current situation to ensure that they didn't accidentally overlook a particular product. In addition to strong customer relationships and communication, data, the benefit of hindsight, and agility will help inform the best decisions we can make about demand in the future, and how our teams can plan for that. Driver shortages, labour, material shortages and production continuity will continue to be issues in our industry, and we must continue to be as agile as possible."

Dr. Mark Lyons, President & CEO of Alltech,

concurs: "The last two years have taught us that, as much as we'd like to be able to see around corners and anticipate demand, demand forecasting is very challenging to do during unprecedented times. Customers all around the world can rely on Alltech to service their businesses and we have increased safety stocks in each country as part of keeping this promise. For the ingredient supplies that we rely on, our focus has been on investing in relationships with key suppliers and providing the best forecast possible. As a large buyer, we believe that it is our responsibility to help our suppliers be successful in planning their shipments to us."

Daniela Calleri, Vice President Business Management BASF Animal Nutrition, issues a word of caution when it comes to stocks. "Supply chain disruptions naturally affect the business relationships between manufacturers and their customers. It is important to keep this in mind and to take action against it, even if the causes cannot usually be directly influenced, especially when overseas shipments are involved. However, I would like to bring an



additional perspective on a few points. Animal nutrition is a relatively continuous business and feed manufacturers are usually relatively good in estimating how much raw materials they need to keep their production going. The manufacturers of feed additives are also familiar with their production capacities and, for reasons of economy, strive to ensure that their systems are fully utilised. Maintaining large stocks costs money and, in addition, the decreasing shelf life of the products in storage must be taken into account. Therefore, there are limits to the options for action."

"That is why it is important on both sides to adapt production to real demand, or where not feasible align very closely and timely on," she adds. "We use the feedback from our customers to plan our production quantities accordingly – the earlier and more accurate the input we receive is, the better we can adjust our production to the needs of the market. Finally, we coordinate the delivery dates with our customers and commission shipping companies to transport the goods on time, as far as currently feasible with the overall transportation market limitations."

The matter is extremely complex, points out **Ivo Lansbergen, President DSM Animal Nutrition and Health**: "Small changes and volatility can lead to large swings along the value chain. If it is unclear how demand is developing, we cannot drive appropriate long-term capacity and production planning. The situation can become more complex in this VUCA (Volatile, Uncertain, Complex and Ambiguous) world."

Looking at the issue further, he says: "Geopolitical tension has led to import bans in some parts of the world. That decreases local material availability, and especially for performance ingredients, this could cause supply disruptions. To make matters worse, long lead times and port congestions are adding to the challenges. The energy crisis in China, India and other nations have led in combination to a significant increase in commodity prices to availability challenges. Freight costs are impacting margins across the value chain (not only sea freight also land transportation especially in North America). Last but not least, availability of labour is a problem in some geographies – especially in the US."

Lansbergen adds: "The key here is to create clarity, connectivity and capabilities in more strategic partnerships to grow and drive reliability together. This is very difficult in a market that is more pressed for profitability. As such performance solutions and higher value products are less impacted, but also affected."

All this goes to show that risk management strategies are important during these harsh times.

Pierre-Joseph Paoli, President of Additives, Ingredients and Amino Acids at ADM Animal Nutrition, says: "Risk management helps us prepare for disruptive events all along the supply chain. Our experience dealing with issues such as natural disasters, widespread disease, industrial issues and geopolitical disruptions helps us better manage gaps within the supply chain to preserve business continuity. We are prepared with business continuity plans and try to avoid single sourcing from one supplier or country. We identify risk with real-time, reliable information from trusted professionals who can identify and analyse potential issues. We monitor the impact of the situation as it evolves and report our findings with high-frequency meetings of key stakeholders. Specifically, industry players can diversify their procurement strategies, prepare logistics for alternate transportation methods and be prepared to pay higher prices to maintain business operations."

And taking this idea of diversified procurement strategies further, many of the senior executives interviewed mentioned local or regional supply as critical moving forward.

Danisco Animal Nutrition's Pauel Fokin

says: "Companies will need to reflect upon their sourcing strategies to ensure that they



are geopolitically robust. I expect this will result in supply chains becoming more local as feed producers invest in locally sourced raw materials, and this transition will require careful management in order to maintain performance."

Emmanuel Auer, Head of Animal Nutrition Business Line, Evonik, agrees: "The pandemic has taught us that as a global industry with local footprints in terms of feed and protein supply, we have to face our weak spots. We believe in the importance of strong, self-sufficient, regional production and supply to ensure reliable production and food supply security for end-consumers."

Dick Hordijk, CEO of Royal Agrifirm, takes the local supply angle a step further: "If you look back at the last 10 years, I think on the one hand we should be incredibly impressed how we developed a global network feeding almost 8 billion people three times a day. It has worked so far, but we must realise how incredibly important food is and reflect on how to organise supply in a in a good way for the coming 20 years. We really need to protect the feeding of billions of people from geopolitical tensions. I think we should be looking at ways to gain more control over our food supply, at least have a serious think about it. Don't pay the price of inefficiency. Start to put your energy in the more regional solutions. I think we have to take that as a serious answer to all those global complexities because I don't see them going away."

The idea of returning to more local supply chains for increased stability seemed to resonate with several industry executives.

"The pandemic opened our eyes to flaws within our complex global supply chain. Unfortunately, incredibly long lead times, exorbitant shipping costs, labour shortages, and unprecedented demand for packaging components aren't going to resolve overnight. And there's nothing to say these won't be challenges again in the future. For these reasons, the strategic focus of supply chain management is evolving from trying to have the cheapest supply chain to having the most stable supply chain," says **Dan Meagher, President and CEO Novus International.** "There's a lot companies can do to swing the pendulum toward stability: broadening the supplier base, regionalising partnerships and practices, near-sourcing, planning optimisation, aligned demand planning with customers and suppliers, and business continuity planning for the unknown disruption that is sure to come."

He is joined by **Trouw Nutrition's CEO, Saskia Korink**: "As an industry, we can build a more robust supply chain if we move away from making predominantly short-term commitments based on last-minute market circumstances for each individual part of the supply chain and towards making more long-term commitments based on stable business partnerships across the entire supply chain. We also need to increase our focus on regional sourcing and reduce our reliance on the production of raw materials in one part of the world to be shipped around the whole globe."

One immediate step in the right direction would again come under the form of digital technologies optimising the flow of supply chains.

"If we want to avoid these disruptions in the future, our industry has to focus on digitalization and collaboration throughout the value chain. All the data points have to be connected in real-time for the entire supply chain, and only then does good forecasting have its value," comments Stefaan Van Dyck, President of Kemin Animal Nutrition and Health, EMENA. "From a technological perspective, we already have opportunities to improve, but the true difficulty is in getting all players involved to share and connect their data. The security aspect of this digitalization might be, in the end, more critical than keeping the supply chain stable. Blockchain technology may play a critical role in securing the confidentiality of data so that information cannot be abused."

Aart Mateboer, EVP Animal Nutrition Perstorp, illustrates: "There is an opportunity for



further digitalization of the supply chain, where sharing data real-time would enable the partners to anticipate their customers' needs [in a timely way]. As an example, when a poultry integrator orders eggs for the hatchery, this could trigger the feed producer to start preparing, book freight etc. Any deviations from planned schedules will then be directly available to the integrator."

"Advanced technology for more efficient logistics and feed production will help mitigate rising raw material costs and production costs. Some feed and animal nutrition producers hedge risk through financial futures, others through sale contracts or mechanisms that can reduce the impact on margins and product prices. In this context, the current landscape presents many opportunities to streamline the supply chain," adds **ADM's Pierre-Joseph Paoli**.

Summarising the main points, **Trouw Nutrition's Saskia Korink** argues that transparency is key. "The critical points of a successful supply chain are data transparency and collaboration between all players. It starts from the point of customer demand with a collaborative and open sharing of information and forecasts between customers and suppliers. And it follows with all actors across the supply chain transparently sharing needs, data, and stock levels, so we can work together to meet these needs (for example, by booking freight, plant capacity and raw materials). This transparency will allow us to prepare our best options, take the best decisions to minimise any bottlenecks or limiting factors, and get the best outcome and benefits for all actors in the chain – first and foremost, our longterm and strategic customers and suppliers."

"Achieving this level of professionalism and collaboration requires supply chain actors to take appropriate positions at an early enough stage on raw material, energy and transport capacity based on forecasts. Companies with an advanced and mature supply chain and procurement organisation and processes definitely have a competitive advantage," Korink adds. "Working together in this way will mitigate spikes and is key to avoiding the well-known bullwhip effect, leading to high peaks that are followed by sharp valleys. In a time of crisis or significant disruption, collaboration and transparency with our partners on data are the keys to success for everyone."

Alltech's Dr. Mark Lyons nods: "It has never been more important to have your finger on the pulse and to communicate quickly and openly."



Reflecting on How China's Influence on the Global Animal Nutrition Sector Can Potentially Be Reduced





INSIGHT: Reflecting on How China's Influence on the Global Animal Nutrition Sector Can Potentially Be Reduced

17 December 2021 – In the previous article the animal nutrition industry senior executives discussed the supply chain disruption and the importance of local/regional supply as well as mitigating risk in terms of sourcing. Additionally, one observation is also recurring by various industry players right now: the world is to some extent dependent on China for manufacturing, and to some extent so is the world's animal nutrition business which relies on some commodities, feed ingredients, and some feed additives (vitamins and amino acids) of Chinese-origin.

Recent months have really accentuated the relative dependency the sector has on China. The focus has been on high freight rates and the energy crisis in China, but with the Chinese New Year on the horizon and the winter Olympics also taking place in China in February, China will continue to be a big dominating force in the animal nutrition supply chain in the foreseeable future and supply availability is likely to feel the impact again.

So, we explore the question today: isn't it time to invest in more local operations and reduce China's influence on the global animal nutrition supply chain? Basically, can the sector ever be in a position where it can afford to source less from China? Could investing in more local operations ever meaningfully reduce the risk inherent in having a single country so central to feed additives production?

First things first: it is perhaps too easy to make China the sole scapegoat of the industry's current woes. To start with, be it China or another nation, no country can feed the world alone. Cargill Animal Nutrition & Health's Sr. Vice President Ruth Kimmelshue says: "Asia as a whole has the most mouths to feed—both human and animal/livestock—as well as a significant footprint supporting both import and export markets. However, Asia supply and demand is just one factor affecting global trade flows, along with weather impacts, ongoing COVID-19 disruptions, logistics and transportation issues, labour shortages and growing demand for biofuels."

Emmanuel Auer, Head of Animal Nutrition Business Line, Evonik, adds: "Relying heavily on a single country or region does not make sense from a sustainability perspective. A more localised approach allows us to have better control over supply chains, reduce transport impacts and improve distribution reliability and sustainability."

Also, according to **Royal Agrifirm's CEO**, **Dick Hordijk**, Europe needs to think harder about its energy and food requirements. "Things will not necessarily get better on a geopolitical scale. I think we are vulnerable. If demand soars in a country, it will most likely upgrade the capacity of its factories and cater to its own people first. And said country will likely use this scenario as a force when negotiating food trade. Then dependency becomes unbalanced."

"It should be clear now, with all the challenges and disruptions our industry has experienced, that we cannot have our businesses rely on China as a single or significant supplier of any critical ingredient or raw material. This risk is not correctly accounted for in our current procurement formulas. The short-term benefit of less expensive goods is not nearly enough to justify the systemic risks to our production



systems and the long-term effects of not supporting the investment required to produce these high-end ingredients locally or regionally," says **Dan Meagher, President and CEO Novus International**.

Meagher adds: "We need to look at this situation critically from an industry sustainability view, which we all are accountable for, and not just an optimised, short-term procurement view. As an example, the capital investment required just to produce the increase in yearly global demand of methionine is in the multiple hundreds of millions of dollars. Those investments cannot be sustained if large users of methionine prioritise procurement strategies that do not account for the risk of creating extreme supply dependency in one country, such as China".

Still, if most of the world's amino acids and vitamins come from China, it is because China has developed an efficient way of producing them and this has suited the industry's needs for many years.

"There is no doubt that the animal nutrition industry has become increasingly dependent on an international supply chain. If we didn't recognise that fully in the months before the pandemic began, we certainly have a better understanding of that now," says **Lisa Deverell, President, Purina Animal Nutrition**. "Chinese suppliers have proven to be very dependable, cost efficient, and quality-conscious partners. But as we all know, policy considerations can easily trump commercial expediency."

"It is indeed the case that, especially for several feed additives like amino acids, the industry is very dependent on China. And as long as the Chinese suppliers will be able to maintain their competitive advantage, China will remain an important force in the market," adds **Aart Mateboer, EVP Animal Nutrition Perstorp**.

Yoram Knoop, CEO of ForFarmers, offers an illustrative example: "Similar to agriculture crops

growing most efficiently in areas where soil is most fertile and climate most supportive, feed additives are most efficiently produced in areas where the main ingredients are near and cost to produce is lowest."

Having said that, there is a growing awareness that more local investments need to be carried out if the sector wants to reduce its dependency on China.

For instance, Nutreco, for many years, says it has focused on achieving a good balance whereby it sources raw materials both from China and the rest of the world. "We will continue to do so going forward," comments **Saskia Korink, Trouw Nutrition's CEO**. "We believe that the recent logistics and energy crisis will stimulate an increase in vitamin and amino acid production capacity outside of China."

Adding on this, **Purina Animal Nutrition's Lisa Deverell** says: "Given what could be a protracted period of supply chain disruptions and strained political relations, it would be wonderful to see meaningful investments in manufacturing assets in North America. There are environmental issues that would, no doubt, need to be addressed, along with policies that would ensure and enable the competitiveness of such ventures."

"We're hopeful that recent headlines announcing planned investments in domestic amino acid production come to fruition and encourage other companies to think about locating ingredient manufacturing assets nearby," Deverell adds. "We need a steady, secure, and predictable pipeline of ingredients because, as we all know, animals eat every day. The most dependable and efficient pipeline certainly needs to include international links, including China, but we would all be well-served by supporting increased diversification."

Meanwhile, **Perstorp's Aart Mateboer** sees China's competitive advantage decreasing due



to several reasons: "freights costs are unlikely to return to pre COVID-19 levels, an increasing focus on reducing environmental impact in China is adding costs for the manufacturers; and purchasers in Europe and the US will take sustainability impacts into account when making purchase decisions. Therefore, I could see more investments in the US and Europe over time that will reduce our independence from China."

Senior executives of companies with operations in China offer their views.

Jean-Marc Dublanc, CEO of Adisseo, for instance sees China remaining a very big and important market. "China is a very attractive market to produce, to source, but also to sell products for every company," he says. "At the same time these questions of dependency are relevant. Unfortunately, there is no one size fits all answer to the questions. It really depends on the product, and its specific integrated supply chain. However, looking forward, we can probably consider that the historical model of a huge production plant located in a low-cost country and serving the world is losing ground and that the industry is progressively moving towards a better repartition of its risks over various continents."

"China plays a crucial role in our animal farming value chain, and that's not necessarily a bad thing. Indeed, China is a market with huge potential: to meet the protein demands of a growing population, we will need their important contribution," also says Ivo Lansbergen, **President DSM Animal Nutrition and** Health. "At DSM, we apply a 'global products, local solutions' approach where we focus on developing a global portfolio of products, that are then delivered through local supply chains and manufacturing facilities to local or regional customers. In this way, we can support the economic sustainability of local communities in China and everywhere else too. In addition, we have deliberately chosen to have our ingredient assets spread around the world and therefore not be 100% dependent on topics and issues in one specific country or region."

The view differs too from people who have lived in China and have first-hand experience of the country's production dominance.

"Living in China and managing our business there for more than seven years, I witnessed first-hand its rapid development as the world's largest feed market," says Dr. Mark Lyons, President & CEO of Alltech. "President Xi Jinping understands food security's importance in maintaining social stability within the world's most populous nation. The disruptions of the last several years have inspired all countries to be more introspective and ensure the sufficiency of their supply chain. One of the most significant risks includes dependence on any single source, whether that is a manufacturing site or a sole country supplier that could be compromised by geopolitical issues, natural disasters, or any number of issues."

"There are always going to be political reasons to focus on one country or another, but the review countries and business are doing of their supply chains is not about that, but instead about prioritising away from just-in-time and leastcost as the only areas to focus on and moving towards a far more balanced approach to supply chain management," he adds.

At the end of the day, all global suppliers and partners are responsible for having contingency plans and reducing dependencies.

For example, **Stefaan Van Dyck**, **President of Kemin Animal Nutrition and Health**, **EMENA** points out: "At Kemin, we make sure to always have production capability in multiple regions for the majority of our technologies so that when a disaster strikes, we are still able to continue to service our customers. This also drives the investment programmes since we often do not



choose the cheapest option, as it usually does not best serve our customers."

Meanwhile, Daniela Calleri, Vice President Business Management BASF Animal Nutrition, highlights her company's model and choice to focus on Germany: "We produce the majority of our feed additives in Ludwigshafen, Germany. In addition, BASF has its own power plant and produces the necessary process energy itself. This is intended to reduce dependencies and ensure better production reliability. We will continue to build on this production in Germany also in the future. Currently we are investing in new and in the modernisation of existing production facilities, for example with enzymes and vitamins."





Consumers vs Industry – What is the Reality of Animal Welfare?





INSIGHT: Consumers vs Industry – What is the Reality of Animal Welfare?

20 December 2021 – Consumers continue to pressure retailers and food producers to improve conditions and the treatment of food animals, a trend set to increasingly influence the supply chain.

According to Prof. **David Fraser**, one of the pioneers of animal welfare science and a current Professor at the University of British Columbia, Canada, animal welfare is a multidimensional concept comprising health, behaviour, and the emotional state of an animal. It is both science and philosophy.

The British Farm Animal Welfare Council (FAWC) has listed what it calls the "Five Freedoms", which are a basis for evaluating animal welfare. The concept offers an approach for the practical measurement of animal welfare in animal husbandry. The five freedoms are: freedom from hunger or thirst by ready access to fresh water and a diet to maintain full health and vigour; freedom from discomfort by providing an appropriate environment including shelter and a comfortable resting area; freedom from pain, injury or disease by prevention or rapid diagnosis and treatment; freedom to express (most) normal behaviour by providing sufficient space, proper facilities and company of the animal's own kind; and freedom from fear and distress by ensuring conditions and treatment which avoid mental suffering.

These common indicators are very much central to the purposes of the animal production supply chain and are passionate topics for any principled company in the animal nutrition industry too. Nonetheless, consumer pressure is on. Part of the issue here rests in a growing consumer requirement for a common, sciencebased approach to animal welfare and more harmonisation among all players in the chain. Consumers, in general, want to know that the animal protein they consume is in line with their personal values.

The industry knows what it is doing, and animals are given proper treatment.

As **Dan Meagher, President and CEO Novus International**, says: "Animal welfare is a priority for anyone producing protein because an unhealthy, injured, or stressed animal is not going to meet the productivity goals for milk, meat, and eggs that are necessary for a sustainable operation. Our industry prioritises animal welfare today as it pursues longevity, reproduction, structural integrity, gut health, and high productivity."

But some consumers are pushing for more transparency, and others wonder if animal welfare can actually be measured.

Yoram Knoop, CEO of ForFarmers says that consumers of animal protein products are increasingly concerned about the animal welfare related to the products they buy, even more so than the environmental impact of animal husbandry. The problem is the practical limitations and accuracy of measurements since animals can't speak for themselves.

"The difficulty is, indeed, how do you measure animal health?" he comments.

Looking at what is already in place, Knoop says: "We can measure if animals perceive stress, for example. There are dilemmas and challenges, however. You can assess animal health by measuring things like cortisol, by analysing ropes being chewed on by animals, or using vision sensors that measure the ratio between pigs lying down peacefully versus those



who move around a lot. This can be done by means of infra-red cameras, which are not ready for massive use in practice. Currently, animal welfare is measured by rating aspects of their housing system. How many square metres per pig? Playing material available? What type of playing material? Daylight?"

These are examples of technologies that are in place which we think help improve animal welfare. But science and technology have to develop further measuring of animal welfare and behaviour.

In addition to practical limitations, the main challenge that the senior executives observe is what consumers define as animal welfare. Sometimes what can be perceived by the consumer as good for the wellbeing of an animal isn't.

"This is probably one of the most challenging topics that our industry is facing, as it has contradictory aspects," comments **Stefaan Van Dyck, President of Kemin Animal Nutrition and Health, EMENA**. "A lot of practices intended to improve animal welfare are also leading to reduced efficiency and increased CO2 production per kg of animal protein. We need to balance both by achieving a good baseline of animal welfare with highest possible efficiency."

"Often consumers project their own view of what is best for animal welfare without considering the alternatives and their implications," adds **Pauel Fokin, Vice President at Danisco Animal Nutrition**. "As an example, free range grazing can have a more detrimental impact on the environment without improving animal welfare."

ForFarmers' Yoram Knoop also mentions the example of beak-trimming of laying hens. "At first glance one would expect this to improve animal welfare. After large scale observations it became clear, however, that birds are more stressed if dominant animals have a sharp 'weapon' (beak). Farmers mentioned that they observed more stress amongst the birds and a considerable deterioration of the feed conversion ratio in laying hens, which we hypothesise is caused by stress and unrest."

Saskia Korink, CEO of Trouw Nutrition, adds: "It's important to point out that some animal management practices can be mistakenly perceived as animal friendly by the public when they actually come at the expense of food safety, sustainability requirements (e.g, space management, or 'waste' of natural resources on animals, and ruminant animal contribution to methane release as a greenhouse gas) or even animal well-being (e.g., sow in farrowing crate to prevent crushing their new-born piglets)."

Another case study is provided by Aart Mateboer, EVP Animal Nutrition Perstorp: "The animal protein industry has made great progress over the years when it comes to animal wellbeing. However, I am afraid the industry will never be able to fully meet with consumers expectations. An example is free range chicken; science has shown that these chickens are much more susceptible to diseases than the ones raised indoors. There is also research that shows that free range chickens are not necessarily any happier because free range living brings new types of stressors to play. I am not sure whether a measurable indicator for animal welfare will be the solution since the outcome might not be aligned with the consumers' view of a happy animal's life."

Dick Hordijk, CEO of Royal Agrifirm, also wonders if consumers are willing to pay the price for such choices: "A responsible food chain also means responsible income for the farmer," he argues. "So, if you ask the farmer to take away 40% of his chickens to give them more space, be willing to pay more for that remaining 60%, because if you're not and if you still think your meat can be super cheap, then you are the root cause for the animal not being at the highest



level of welfare because efficiency can drive to lower standards."

Moving forward, for some of the senior executives, quantifiable measuring of animal welfare and feeding information back to the consumer is achievable as long as this remains a company focus.

"In the future, we expect investments and progress in the digital space to provide us with the tools to measure animal welfare in real time to a certain degree," says **Danisco Animal Nutrition's Pauel Fokin**. And a category rating system could be included on the label to reflect the production system used to raise the animal and bring the protein to market."

"I'm sure that, one day, this will be a reality," adds Ivo Lansbergen, President DSM Animal Nutrition and Health. "Quantifiable metrics can, and should, be translated to labelling systems that will allow consumers to make informed decisions. And it's not just animal welfare. The same applies to the environmental impact of animal farming, which can also be quantified accurately with the right tools. Consumers should be able to know and understand what they are buying, because, to take one example, not all beef has the same environmental impact. Of course, to make these labelling initiatives a reality, there will need to be full value chain effort, involving retailers, consumer authorities, and leaders in the digitalization of the animal farming industry, such as DSM."

Meanwhile, taking a step back and looking at where the concerns are coming from, **Royal Agrifirm's Dick Hordijk** wants to look at the type of consumers involved: "In my view, there is a small proportion of people (maybe 5-10%) who hate the idea that animals are slaughtered for their meat. It's their right to think that way. There's also a chunk of the population for whom animal welfare is important, who need to be reassured that the animal had a decent life. Most people who eat meat are less concerned. Animal welfare can be super practical and measurable, we can make it something to discuss as an industry together. I think we should take responsibility for that and answer the questions being asked. And let's not just react to the 5-10% that says, I hate everything you do about animals. It's not like the 10% represent us all."

While the supply chain invests in these technologies, and identifies its audiences, it can simultaneously continue to communicate on animal welfare and address the concerns of consumers.

"Our role, as an industry, is also to debunk some of the myths, that are based on a romanticised view of farming and generate negative publicity around practices that are, in fact, in line with animal welfare," says **Trouw Nutrition's Saskia Korink**. "Labelling is not the only or easiest solution to this problem because animal welfare is a complex issue. Along with increased public interest in animal welfare comes the need for balanced and credible information. We believe that it is up to our industry to better educate consumers as to what decent animal care looks like, and up to public authorities to promote initiatives involving especially children and young people."

"Many consumers do not have a correct perception of the focus and importance animal welfare has in our current production systems because they themselves are so far removed from those systems and how the food they eat is grown. Most consumers do not have an accurate view of modern intensive animal production and the benefits the system brings to all aspects of production, including animal welfare," adds **Novus' Dan Meagher**. "Possibly one way to drive understanding of what welfare means in our industry is through education, either in schools or community outreach programs or through our many industry associations via social media. Education begets understanding.



The hope is that as consumers better understand modern production systems and the challenges producers face ranging from weather, raw material costs, disease, marketplace demands, etc., they can more clearly see that welfare is a key priority."

For Dr. Mark Lyons, President & CEO of

Alltech, animal welfare is an emotional issue for producers and for consumers. "I believe the bridge is through authentic story sharing rather than a quantitative system that lacks any sort of connection to the people who care for the animals."

"Consumers need to, first, believe we care and can be trusted. We must find opportunities to do this through storytelling but also through the use of data and measurement. As with environmental sustainability measurement, the whole chain working together can provide producers with resources to share the positive reality of what is happening on farm with concerned consumers. We need the entire agri-food chain to see this as a priority."

This shared responsibility is also an important aspect for **Trouw Nutrition's Saskia Korink**. "It all starts with having a shared definition of what welfare means for each species, across stakeholders and geographies. Animal welfare is a shared responsibility which requires the engagement and involvement of different stakeholders, such as veterinarians, farmers, and other animal caretakers but also us nutrition specialists, since nutritional strategies can help animals to, for example, cope with challenges that come from their surroundings (temperatures, transition periods, feed safety, etc.) and combat undernutrition (palatability), thereby improving their welfare."

As she says, the animal nutrition sector can play a big part in the overall welfare of the animals it caters for. "The knowledge we have as an industry enables us to better measure, understand and improve the health of animals," says **Emmanuel Auer, Head of Animal Nutrition Business Line, Evonik.** "It is important to find a balance between efficient growth, healthy nutrition, and sustainable livestock farming."

"Animal welfare is not new to the industry and the perceived welfare will evolve overtime. Some new parameters can arise, and we have experience to adapt animal production accordingly. At the same time, just like the sustainability discussion, our industry is playing a role in animal welfare (e.g., reduction of ammonia emissions, reduction of foot pads...). We should be more vocal in this area as well," adds **Jean-Marc Dublanc, CEO of Adisseo**.

"Our industry can make a contribution to ensure favourable feeding conditions," goes on to say **Daniela Calleri, Vice President Business Management BASF Animal Nutrition**. "One trend, for example, is precision feeding, which is precisely adapted to the respective needs of the animals and as is well known, this need varies according to age or performance. In this context, the avoidance of antibiotic abuse in feeding must be addressed. This is associated with health risks for humans. In the first place, experts see the danger that various pathogens will become resistant to antibiotics. Therefore, digestion should be positively influenced in other ways."

So Young Kim, Head of Animal Nutrition Business Division, CJ CheilJedang, singles out gut health as key in this quest for superior animal welfare. "Gut health has become a buzzword since antibiotic growth promoters were banned in diets many years ago, first in Europe and now globally. As we know, the gut is the biggest immune organ in the body system, and we can control the disease by maintaining gut health. Preventive measures based on accurate diagnosis are a prerequisite to healthy livestock."



Adding to that, **Ruud Tijssens, Chairman International Feed Industry Federation (IFIF)**, says: "Adequate animal nutrition (defined as the provision of well-balanced and well formulated feed) combined with good hygiene practices on farms and proper housing are key in promoting animal health and welfare. A balanced diet of compound feed supported by specialty feed ingredients meets the animal's physiological requirements and maintains the balance of the gut flora. Gut health is in fact a key factor in keeping animals healthy and resilient to stressors, such as heat or pathogens."

ADM Animal Nutrition's President of Additives, Ingredients and Amino Acids, Pierre-Joseph Paoli, nods: "Our industry certainly has the ability to improve health and well-being across species with more efficient and environmentally friendly methods. Around the world, the absence of hormones and antibiotics is a baseline standard. We believe that stricter measures can demonstrate animal welfare. including third-party certifications and qualifiers like pasture raised, non-GMO and organic. Furthermore, traceability and transparency throughout the supply chain will help meet consumer demand for animals fed in precise and responsible ways to ensure safe and high-quality food products."

35



Animal Nutrition Industry Needs to Be More Vocal as Sustainability Work Continues




INSIGHT: Animal Nutrition Industry Needs to Be More Vocal as Sustainability Work Continues

21 December 2021 – 2021 events like the EU Green Deal, the latest proposals of the Farm to Fork Strategy, the Global Methane Pledge, or even COP26 that took place in Glasgow, Scotland in November are putting animal agriculture front and centre in political leaders' minds.

More likely than not in Europe and around the world, the animal production supply chain will be brought under the spotlight and will be urged to adhere to a strict sustainability agenda, which will include measurable environmental targets as well as perhaps implicit pressure to communicate to the world some net zero goals.

Moreover, this year, activist organisations have been once again very vocal in naming food and agriculture production as being harmful to the environment. They appeal to political leaders and consumers using very powerful rallying messages (which may be unfair or scientifically unproven). They are using society's communication channels in smart ways.

Feedinfo turned the mic to senior executives of the animal nutrition industry to gather their responses on these growing pressures. We asked them two questions: 1. How can we as a united industry counter-argue just as vocally as the activists and aim to shift opinions? And 2. Isn't it time to set up an overarching body that can proactively advocate for the industry?

Here is a round-up of their reactions listed in company alphabetical order:

Jean-Marc Dublanc, CEO Adisseo: A lot of these activists are promoting meat alternatives. Instead of fighting against meat alternatives we should rather welcome them as an additional option for the consumer but defend the position that the vast majority of consumers will continue to eat meat anyway and that there is no way to stop the demand of developing countries. In this context we should hammer home the message that the specialty feed ingredient sector has a lot of highly valuable solutions to improve the production of meat in a high quality, healthy, affordable and sustainable way. We have all the proof and scientific arguments to support our allegations and we should not be shy about promoting them.

Pierre-Joseph Paoli, President of Additives, Ingredients and Amino Acids at ADM Animal Nutrition: As global players in the animal nutrition industry, we have a responsibility to help conserve natural resources and develop new technologies that will help animal production become more efficient. While reducing carbon footprint at a producer and on-the-ground level is important, a bigger challenge is altering the impact across regions and the global supply chain. Addressing the greatest challenges in the animal nutrition industry requires innovators from all sectors - private, public, academic, start-ups – working together toward a common goal to mitigate environmental impact. In our view, the industry is currently too fragmented to identify an overarching body that can advocate for everyone, but we can make smart use of technology to ensure increased visibility along the value chain to the consumers.

Dick Hordijk, CEO Royal Agrifirm: We know there is a lot still to be done in terms of sustainability. We're working on it, and the content of our message could be super powerful. One of the reasons we are not as vocal as the NGOs is because we are not aligned. We are in some ways shooting ourselves in the foot sometimes. If we do something brave in terms of sustainability within our own community, the



farmers, your competitors, they'll be the first to criticise you. With NGOs, the impression they give is that they are aligned. I'm sure they don't always agree, but in the press and to the world they will never tackle each other. Feed producers must agree on the core of the sustainability message. And we should agree quickly. It is about being shoulder to shoulder and say 'guys there is stuff that separates us but there is far more stuff that binds us' and focussing on that. Agree on all the big topics and don't fall apart when you get pressure.

Dr. Mark Lyons, President & CEO of Alltech:

There was significant, and well-founded, concerns that COP26's outcomes were a fait accompli and likely to become a referendum on agriculture. Yet, much to the chagrin of animal and vegan activist groups, COP26 focused appropriately on fossil fuels and there was even some recognition of the role of agriculture in reducing the effects of climate change. There was a strong focus on the science, and the science showed that, while agriculture has a role to play in the sustainability charge, changing what we eat will not reverse climate change in a significant way. However, we have seen an overall amplification in various groups' efforts to undermine agriculture, especially through media and social media. For far too long we have been divided in our 'agvocacy' by agriculture sector or locality, and this has undercut our influence on government policy, the media narrative and, ultimately, public perception. We firmly believe that agriculture has the greatest potential to positively impact the future of our planet. With the implementation of new technologies, improved farm management practices and collaboration, agriculture can be climate neutral and even induce a cooling effect on the planet. It begins with an honest and transparent assessment of our impact and then an openness to collaboration so we can move swiftly to take decisive and deliberate actions that rapidly advance improvements. Agriculture can be one of the key sources of solutions to the climate

challenge, and in so doing create a new part of the industry. Instead of focusing on a defence, let's unite in building something better. Let's double-down on the science, scale the solutions and tell the story, together.

Daniela Calleri, Vice President Business Management BASF Animal Nutrition: Not only due to policy developments but also as a result of growing end consumer demand, the entire animal protein value chain is required to move towards continuously more sustainable production practices. The feed industry is an important part of this. At BASF Animal Nutrition we are strongly committed to reducing the environmental footprint in animal agriculture to enable our industry to increase efficiency as well as reduce its environmental impact. BASF has committed to reducing its CO2 emissions by 25% by 2030, using 2018 as the baseline year. At the same time, we are already working on new technologies and concepts to achieve our latest goal as communicated to the market in summer 2021: BASF aims for net zero carbon emissions by 2050. This means that reducing the carbon footprint also plays an important role in the manufacture of our products for animal nutrition. Today we share our expertise specifically with our customers. If agreement can be reached throughout the industry on more environmentally friendly production, the way would be clear for collaborative action. Coordinating this would perhaps be a task for the associations, which could bring everyone together.

So Young Kim, Head of Animal Nutrition Business Division, CJ CheilJedang: We emphasise that the industry has to use antideforestation materials such as amino acids and other feed raw materials as substitutes to deforestation-linked materials such as soy. Sustainable livestock production can also be achieved by pursuing a low protein diet policy, leading to both less carbon and methane emissions. A low crude protein diet policy will



eventually benefit livestock producers as the diet is more economically feasible and gut-friendly to reduce pathogenic bacterial loads.

Pauel Fokin, Vice President at Danisco

Animal Nutrition: It's true that as an industry, we have been more reactive than proactive, even defensive, and sometimes silent on the issue of sustainability. We need to do much more - not only in terms of communicating the remarkable progress we have already made, but also accelerating our efforts to achieve a sustainable future. And it's important to keep science and data at the forefront of this conversation. The industry also needs to take a more proactive approach to building its own narrative. We have made great strides in terms of animal welfare, sustainability and productivity. As a business, we should communicate about our own sustainability targets, as well as what we are doing to help the industry and climate change, to ensure we can help feed the global population in a way that respects both animal welfare and the planet.

Ivo Lansbergen, President DSM Animal Nutrition and Health: Environmental activists bring an important message to the table, and I recognise and admire the passion with which they deliver it. Over the years, they have played an important role in helping our industry reflect on the sustainability of its practices. Nevertheless, I feel that only the side of criticising animal farming receives a lot of public attention, and that - for example - farmers are often forgotten about during sustainability discussions. We do not need to work against activists, but together with them - and all other stakeholders – to make animal farming more sustainable and ensure that it can continue to create value for all in the long-term. Personally, I do not see the need for an overarching body that can proactively advocate for the industry, since we already have a range of bodies that advocate for key issues within our industry. One thing I would say though is that it is time that these

activists start to appreciate where the food which we are all consuming is coming from and realise the efforts put into making it safe and nutritious. We believe that we should demystify some of the statements and have a fact-based discussion about animal proteins. Data and digitalisation will help in this regard.

Emmanuel Auer, Head of Animal Nutrition Business Line, Evonik: First, we must admit the impact of feed production and aquaculture on sustainability and biodiversity is enormous. But we can, and will, change that. For example, alternative sources of essential omega-3 enable salmon farmers to reduce their fish oil consumption in feed to a "biodiversity-neutral" target level. Sustainably farmed salmon should not take more wild-caught fish equivalents from the ocean as salmon volumes grow. Just imagine the tonnes of wild caught fish, normally processed into fishmeal and fish oil, that would then be available for human consumption. Regions where the local population urgently needs fish as a source of protein would no longer have to suffer. To cut a long story short: The current retreat of wild caught fish stocks remains a risk to the long-term biodiversity of our oceans and to human food security, which our industry can help to transform with innovative solutions.

Yoram Knoop, CEO ForFarmers: Participants at COP26 agreed on the need for a transition towards sustainable and climate-resilient food systems, taking into consideration the vulnerability of agriculture to the impacts of climate change. They recognised that this transition will be crucial to guarantee food security and ending hunger throughout the globe and at the same time to achieve climate objectives. Furthermore, they also noted the importance of scaling up support and resources to achieve inclusive, sustainable and climateresilient agricultural systems. Livestock plays an important role on sustainable food systems by transforming low value materials into high quality



and nutritious food for humans. Activist groups often quote global average figures for emissions from livestock. They also tend to ignore the social and economic role that livestock plays in many rural communities, nor do they recognise the health benefits of moderate levels of meat and dairy consumption in well balanced diets. In Europe, we have some of the most efficient farmers in the world with much lower emissions than those global averages. Despite the emotional nature of activist campaigns, the feed industry should continue to provide factual and science-based evidence to policy makers and other stakeholders. Decisions need to be made on the basis of facts and not pre-determined assumptions. Countering emotion with technical arguments can be challenging and complex but we will continue to do so.

Ruud Tijssens, Chairman International Feed Industry Federation (IFIF): There is no doubt that continuing to increase the sustainability of animal production is a key challenge of our times. We have to remember that feed is part of the solution and over the last decades through innovation and efficiency, animal feed has proven to be an essential part of the solution to make the livestock production chain more sustainable. In fact, one of the key parts of IFIF's mission is to continue to support and encourage the sustainable development of animal production and over the last ten years IFIF has developed a number of strategic initiatives to measure and benchmark the environmental performance of the livestock production chain. IFIF believes that only by working together with all stakeholders in the feed and food chain, including governments, the private sector and non-governmental groups, can we meet the demands of 60% more food, including animal proteins like beef, poultry, fish and dairy products in the future, and at the same time reduce the environmental and societal impact of livestock farming. And, we always have to keep in mind the need for sciencebased decisions and actions that truly contribute

to the sustainability of the planet. This also applies to getting science-based and factual messages out and IFIF works closely with our livestock chain partners with the objective to find a common voice to address this. So yes, we think we can only respond effectively if we speak with a common voice. Communication is a two-way exercise: we should listen to society to understand their questions and concerns even better and provide solutions for the livestock sector, as we always have done.

Stefaan Van Dyck, President of Kemin Animal Nutrition and Health, EMENA: Firstly, our industry must avoid greenwashing and avoid putting too much emphasis on existing solutions by positioning them as solutions to reduce the carbon footprint. For example, enzymes are already used in all production animal diets. Enzymes have a CO2 sparing effect, but this is not always involved in the common use of enzymes. Therefore, we need to focus on real, innovative, data-driven actions to improve the carbon footprint and evolve towards carbon neutrality, both as an organisation and as an industry. Secondly, we have the advantage of being in a scientific industry, so we must remain scientific in our actions, communication and studies. In the long term, data and science are closely linked to common sense, which we believe will prevail. Thirdly, we have the benefit of consumers who want to believe us when we are able to prove that the animal protein they have loved for many years can be produced in a renewable way. Full transparency along the feed-to-food chain is another pre-condition to succeeding in consumers' mind. This also requires accepting that the flexitarian diet is here to stay and, at this moment, is the only sustainable option with the current technologies. We need to embrace this and focus on the quality and value in a society with reduced consumption of animal protein. Additionally, as the world's population continues to grow, the demand for protein soars. Alternative protein sources are available to give consumers multiple



options. Alternative proteins are not the enemy of animal proteins – they are a complement.

Dan Meagher, President and CEO Novus

International: Sustainability is important to our industry and has been a driver for decades. In many ways, the activism opposing our industry is driven by misinformation and misunderstanding of how we produce food for the world. Those in our industry know that we're producing more than ever before with a higher focus on safety, sustainability, and animal welfare, and we're all working to do more with less. Instead of trying to reason with the nay-sayers or the anti-ag, what we should do is continue to support the industry groups that tell our story and tell it well, to better educate the population about sustainable food production. For example, AFIA, National Dairy Council, National Pork Board, International Egg Commission, U.S. Poultry & Egg Association, National Chicken Council, National Cattlemen's Beef Association, and other associations around the world are already using their time, money and expertise to create campaigns on how food goes from farm to fork. We should be promoting their efforts and partner with them to bring education about our industry into classrooms and communities.

Aart Mateboer, EVP Animal Nutrition

Perstorp: During the 2021 Feedinfo Summit in Geneva this topic was discussed several times, both in plenary as well as in round table sessions. There seemed to be a consensus that the topic of sustainability and climate impact of the animal protein industry requires a comprehensive approach. I could see a closer collaboration between feed, farmer and meat industry associations and the multinational food companies to drive a balanced counter messaging process.

Saskia Korink, CEO Trouw Nutrition: The impulse to create an industry counterargument is a common reaction when faced with critical

pressure from NGOs or society. But we should propose a different approach: embracing the criticism, welcoming the scrutiny, and committing to working together with our critics towards a common solution. This is not a new idea; it has been tried, adopted and found to work very successfully in the farmed seafood sector, where the NGO community was highly critical and vocal on mainstream and social media about the environmental and social impacts of salmon aquaculture for over a decade. In response, the industry created the Global Salmon Initiative (GSI), through which 50% of global salmon production came together and "partnered" with NGOs to work on the outstanding issues related to their production and supply chain. That approach has proven much more effective over the last six years than creating lines of defence and "circlingthe-wagons" would have been. The preferred course would be to convert the negative energy often found in the media into a positive tool for becoming better stewards of the environment. I would like to see a precompetitive, multistakeholder platform to address the outstanding issues; a platform that openly recognises the food production industry's role in addressing climate change, biodiversity loss and land-use conversion, antimicrobial resistance in animal husbandry and animal welfare. There is a need for a platform with specific internal task forces addressing each of these outstanding issues. Perhaps NGOs could be convinced to engage with industry representatives to seek common tools to address and reduce these real impacts. What I know for sure is that we must be bold. We need to "move the needle" on these environmental and social impacts. Trouw Nutrition and the industry are strategically poised to develop solutions. Holding ourselves publicly accountable will reduce the risk of greenwashing. The industry sector, along with academia and NGOs, can play an important role in finding and implementing practical solutions.



Coming Soon on Netflix? – Animal Nutrition Industry Senior Execs Rally and Pitch New Documentary Series





INSIGHT: Coming Soon on Netflix? – Animal Nutrition Industry Senior Execs Rally and Pitch New Documentary Series

22 December 2021 – Be it sustainability, animal welfare or other topics, as we have seen in this series of articles so far, the animal production supply chain has clear plans and good intentions. However, it still suffers from a bad rap in the eye of the general public which is oftentimes influenced by misinformation spread by animal agriculture's adversaries.

The animal nutrition senior executives have discussed how vital it will be going forward to get on the same page and collaborate to promote the key work that is underway within the sector. It is increasingly important that the sector controls its narrative and not always be in a position of defence. Perhaps it is time to bring the narrative to the misguided public, and on its turf? And why not on video content streaming services where some of the damage has been done with several controversial feature documentaries or TV series such as 'Seaspiracy' (2021), 'Cowspiracy' (2014) or 'Rotten' (2018-2019)?

With some of the animal nutrition senior executives we decided to do a bit of role-playing, with the executives in the part of the storytellers, and Feedinfo playing the role of a Netflix producer taking note of their idea pitches. We asked them to imagine an upcoming meeting with Netflix to create a TV documentary series that would give exposure to the good work going on in the animal nutrition and health industry. Below are their documentary-story pitches in company alphabetical order.

Comin soon to Netflix:

The Royal Agrifirm Pitch by Dick Hordijk, CEO: "NGOs Win and Farmers Disappear Overnight"

There is a tremendous pressure on the food chain to change and yes, the consumers are right in the way that we are responsible for some of the environmental issues in the world today. So yes, we need to work very hard to invent, smarter ways to feed people. The problem is that things cannot change as fast as society wants us to change. The game you are playing is incredibly dangerous and we run the risk that farmers will be discouraged. Farmers are feeding the world. Farmers, I think are very powerful. We need to give them the tools. If farmers are attacked and are discouraged, I really feel like we are not communicating in the right way. Consumers can help. If you want to change the way we work, what is your suggestion? Help us and we can help you. Let's aim for a better food supply, but not by kicking us. Perhaps let's send a shock message. The shock documentary series whereby if we were to remove farmers from the equation, if we were to remove your agriculture suppliers. If you were to just stop meat overnight, what would be the negative and material consequences? How will this affect the world? Imagine a world like that in which the NGOs have basically won. It would be catastrophic. Why not say 'thank you farmer for feeding the world'?

The Alltech Pitch by Dr. Mark Lyons, President & CEO: "From Machine to People"

Our storytelling approach is to focus on the people of agriculture. They become the main characters. We also recognise the importance of acknowledging the conflict and challenges that they face, and the solutions they are implementing. We take the audience on a journey that resonates emotionally. Consumers are often misled by media to view agriculture as a dangerous "machine." In reality, agriculture is



about people; and people – audiences – connect with people. The interest in where our food comes from and the people that produces it is already a hot topic within many streaming service offerings, however those that truly do the work are rarely those telling the tales. That is a white space that could be filled, and I believe Netflix and others would find that appealing as long as it is told in a way consumers would find appealing.

The BASF Animal Nutrition Pitch by Daniela Calleri, Vice President Business Management: "Its All About the Science"

Let's help the customers shape the future of the industry. And the way we do this is by focusing still more sharply on the science of sustainable feed. Our aim is to work closely with feed producers in partnership. So, we can better understand our customers' needs, share knowledge and expertise, provide honest advice and technical support, solve problems, and reliably deliver the right solutions. Our industry's science-led, sustainable solutions approach is designed to help meet the current challenges. Finding the best, most cost-effective mix of ingredients. Making more efficient use of resources, with fewer inputs for the same or greater outputs. Improving animal health and vitality. Increasing productivity. Reducing environmental impacts. Creating better feed to help create better food. Our science is supported by the rapidly increasing use of digital technologies, cloud-based management systems, data analytics and feed formulation software, along with application, regulatory and sustainability support services. It is all about the science of sustainable feeding that succeeds.

The Cargill Animal Nutrition & Health Pitch by Ruth Kimmelshue, Sr. Vice President: "Feeding 8 Billion"

Consumers can easily take for granted how many people—and how much effort it takes—to

move food from a farm to family tables around the world. "Feeding 8 Billion" would be a docuseries celebrating the true heroes of that food system – farmers, ranchers, front line food production teams, grocery store workers and transporters – and a look inside their work and the passion they display every day to nourish the world.

The CJ CheilJedang Pitch by So Young Kim, Head of Animal Nutrition Business Division: "Low Carbon Nutrition"

Our theme for the Netflix documentary show is to highlight our commitment to low carbon solutions in the livestock industry. We can put several examples on the table, such as revolutionary feed formulations using various types of essential amino acids leading to low protein diets. Feed enzymes can be good vehicles to reduce carbon, nitrogen, and phosphorus in the feces that will improve both the farm environment and the health status of the animals.

The Danisco Animal Nutrition Pitch by Pauel Fokin, Vice President: "The Holistic Journey"

Join us on a journey as we engage our customers and end consumers, try to reconcile conflicting consumer desires and deliver healthy, sustainable and tasty foods to your plate every day. Saving and feeding the planet are individually straightforward, but very hard when tackled together. We need new and better ways to put food on everyone's table. New ways require bold, forward-looking innovations inspired by traditional customs and modern lifestyles. Biotechnology and food technology are already helping to translate this vision into reality. We can take a more holistic approach, which considers how everything that is fed to an animal combines and interacts in the intestinal tract. This approach provides new insights that help animal producers make more profitable decisions that improve animal performance,



sustainability, and animal welfare. We can't wait to welcome you into our world.

The DSM Pitch by Ivo Lansbergen, President Animal Nutrition and Health: "The Wrong Bad Guy"

I would centre my pitch around labelling of animal proteins and show, based on data, that animal proteins do not necessarily have a poor environmental footprint and do deliver nutritious ingredients to the human body. In this pitch, I would use the example of a litre of milk supposedly having a worse environmental footprint than a litre of almond milk. When compared to, and taking into account the protein content, the story changes radically. And this is the point we as a value chain need to get across; educate the consumer based on facts and data and avoid broad-brush statements that all animal proteins are environmentally unfriendly. In addition, we have a unique opportunity, with the availability of digital tools, to recognise and reward farmers' efforts by making use of farm-based data, instead of categorybased data. One may find out that the average kilogramme of meat might not be as sustainable as the alternative protein but if we zoom into an individual farmer's operation, we may find a completely different outcome. It is time that those farmers are recognised for their efforts.

The Evonik Pitch by Emmanuel Auer, Head of Animal Nutrition Business Line: "Our Innovation is Walking the Walk"

I can imagine a documentary that shows how digital and science-based decisions, as well as innovation, drive the future of sustainable protein supply. Showing the power and influence of innovation in our industry, consisting of genetics, nutrition, and health, would impressively prove that we no longer think in individual silos, but holistically. In other words: Our industry is not just talking the talk but walking the walk. I think that would be good material for a Netflix documentary, if not a blockbuster!

The International Feed Industry Federation (IFIF) Pitch by Ruud Tijssens, Chairman: "The Bigger Picture"

Looking at the bigger picture, livestock production occupies more than 1 billion people globally, and animal-sourced foods provide 18% of global calories and 39% of protein intake to humans. We feed a still hungry and unequal world and we need to continue to ensure affordability and efficiency. We can be part of the solution to reduce global warming by reducing methane emissions with productivity, using animal nutrition technologies to reduce enteric emissions and improving the use of nutrients from existing ingredients to lower the land use for livestock production. We as the feed industry work and invest to innovate animal nutrition and we are an important part of the circular economy. We as an industry are bringing the cost-effective solutions to the different animal productions models, intensive, extensive, small-holder farmers and large farms. Our aim should be to produce more with less and at an affordable cost under diverse conditions. Meat consumption is projected to rise nearly 70% by 2050; dairy consumption will grow 55% and overall demand for food will grow by 60%. The central challenge facing the agricultural chain, and also societies around the globe, is how to meet this demand safely and sustainably, keeping in mind environmental, economic and social factors. Only by working together with all stakeholders in the feed and food chain, including governments, the private sector and non-governmental groups, can we meet these demands in the future.

The Kemin Pitch by Stefaan Van Dyck, President Animal Nutrition and Health, EMENA: "Emotions and Values"

Customers are moving targets, and this requires us to build a close partnership with them and personalise our communication in order to increase their loyalty. We can only do this if we look into every single need and expectation – something that can only be done with a digitally



transformed service offering focused on sustainability and in close association with other industry partners. Customers need to be able to connect with certain brands. This requires both relevant content (scientific, rational) and emotional drivers to feed consumers' beliefs and identities and improve their quality of life. Values such as authenticity, transparency, and care for the environment, animals and all human beings are necessary for success.

The Novus International Pitch by Dan Meagher, President and CEO: "History Matters"

We have an efficient system capable of feeding the world high-value, nutritious food. Modern animal protein production is a sustainable system with outputs of extremely high nutritional value that is currently feeding the largest global population ever on Earth. It's the sustainable part of that statement that catches people off guard. Modern animal protein and crop operations are counter to the image of a cow on a hill, a chicken in a field, or an almond orchard as systems capable of feeding the global population in a sustainable way. But those ways are simply not reality. Our pitch is to take on the misconceptions about sustainable agriculture by showcasing the great achievements in the animal nutrition and health industry. The programme will look at the lifetime of each animal and show what has changed in the last 100 years to improve environmental sustainability, animal welfare and the final product through nutrition, management and science, showing just how complex it is to feed the world healthy, safe and affordable food sustainably.

The Perstorp Pitch by Aart Mateboer, EVP Animal Nutrition: "Don't Hate the Player, Hate the Game"

A documentary in which a crew follows two people: One a mid-career nutritionist at a large broiler integration, the other a freelance journalist with a passion for talking the talk on all matters sustainability and animal welfare. Viewers learn quickly that they are not so different at all. Without a direct dialogue between them, the viewer gets to see that each has their points but both have their hearts in the right place. It's a matter of 'don't hate the player, hate the game'. If consumers continue to buy mostly on price and convenience, continue to eat meat carelessly and supermarkets continue to translate price pressure entirely to the production chain – is the industry that is doing the best to meet that demand really to blame for anything?

The Trouw Nutrition Pitch by Saskia Korink, CEO: "Feeding Today's Children in the Future"

Imagine a child born in 2021. Digital native, world citizen and omnivore. By the time this child is 30, our planet will have a population of 10 billion people. Like the child, they will all need high-quality protein to live and thrive. However, our current system for producing protein is struggling to adapt. To feed today's population, we are already consuming the equivalent of 1.5 planet earths of natural resources each year and wasting one-third of the food we produce. In developed countries, households are spending less on food than ever, challenging not only the economics of food producers and farmers but also their morale, as the world holds them responsible for environmental damages, health hazards and animal welfare. At the same time, people in developing countries can hardly afford their daily meals - farmers there exist on the edge of survival, only able to grow enough to feed their families. And farmers everywhere operate on thin economic margins while facing relentlessly higher consumer demands, increased competition for natural resources, and growing difficulty in procuring the raw materials they need to feed their animals. As cities expand, there is less and less arable land available to produce the milk, eggs and meat our growing population needs. Today, farmers



and food producers have a lot on their plates. In many ways it's a challenging time to be in their shoes. But it's also an exciting time – their jobs have never been as important for today's children – and the planet's survival. In this documentary, discover the agriculture industry's incredible resilience and resourcefulness as it takes up this momentous challenge. Our industry is transforming the entire food system through a circular approach to agriculture that retains as many nutrients as possible within the food chain. We're building a more transparent and reliable supply chain capable of ensuring food can get to the people who need it. We're strengthening animals' immunity through feed additives and biosecurity measures to improve their overall health and welfare and prevent zoonoses that threaten human health. And we're exploring exciting alternative ingredients sources, such as insects or food by-products, that will let us produce food in incredibly sustainable ways. This documentary will change your perspective on today's agriculture industry and show you how we can securely feed the future for our children and the generations to come.



What is Feedinfo?

Providing industry players with invaluable market intelligence that supports strategic and tactical decision making, Feedinfo is a specialist news service that covers key industry developments and feed additive pricing for the animal nutrition sector.

For over 20 years, we've been the first port of call for feed additive producers, compound feed and premix manufacturers, and those providing services to or investing in the animal nutrition industry for a complete view of the and updates on the latest changes, impacts and challenges as they happen.

When it comes to keeping in the know, Feedinfo can help you in three key ways:



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Thorough and independent price reporting and analysis to base key decisions on

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