

FIAAP ASIA 2010 – “Ingredients for Success”

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Biographies and Abstracts



THE GLOBAL SUPPLY AND DEMAND FOR FISHMEAL AND FISH OIL

Dr. Andrew Jackson, Technical Director, International Fishmeal and Fish Oil Organisation, U.K.

The presentation will examine the historical production of fishmeal and fish oil by country and discuss the main factors that have affected it right up to present production levels. It will also identify the prospects for future production in the short to medium term. The demand side of the balance will then be analysed, again looking at the historical changes that have occurred between the different market sectors. The key drivers will be identified including price and elasticity of demand for the different sectors for both fishmeal and fish oil. The likely future demand will then be analyzed by sector and the future availability of products for the market discussed.

Andrew Jackson is the Technical Director with the International Fishmeal and Fish Oil Organisation, IFFO, the trade body that represents the global interests of the fishmeal and fish oil industry. Its members produce around two thirds of the world production. In addition to looking after the technical interests of the members, Andrew has led the team developing IFFO's Global Scheme for Responsible Supply, which was launched in 2009. Prior to joining IFFO in 2006, Andrew spent over twenty years in the salmon farming industry in both Scotland and Chile. During this period he held various senior roles in feed, farming and processing within Marine Harvest. For a number of years he was also Chairman of the Scottish Salmon Producers Organisation and was instrumental in the development and launch of its Code of Good Practice.



THE USE OF MEAT AND BONE MEAL IN ANIMAL NUTRITION

Dr. Kenneth Bruerton, Protea Park Nutrition Services, Gold Coast, Qld, Australia

Meat and bone meals provide a very digestible source of amino acids, minerals and energy. As a protein source MBM is similar to soybean meal and is relatively high in lysine, arginine, threonine and valine. It is lower in tryptophan, isoleucine and total sulphur amino acids than soybean meal but tends to compliment the latter well in diets for pigs and poultry. The macro minerals Ca, P, Na and Mg are present at high levels in MBM and this can be of major economic value in monogastric diets although it does limit the inclusion of MBM in aquafeeds. MBM contains no phytate and the digestibility of minerals in all species is high, allowing the removal of all inorganic P sources from the diet, particularly when used in conjunction with phytase enzymes. Trace minerals and functional nutrients will also be discussed.

Dr Ken Bruerton graduated with honours in Science at Monash University, Australia, in 1970, majoring in Biochemistry. He undertook post-graduate study in Biochemistry at the University of Queensland and graduated in 1977. After post-doctoral research at the University of Adelaide, Dr Bruerton joined the animal feed industry as a nutritionist in 1979. After nine years working for a national nutritional consultancy group he formed his own consulting company, Protea Park Nutrition Services. He has now spent more than 20 years in private consultancy. He has worked extensively in Asia and consults regularly in Australia, the Pacific Islands, Turkey, Russia and Japan.



RAW MATERIAL EVALUATION AND HOW TO EXTRACT FULL VALUE FROM IT

Ms. Sheila Heidi M. Ramos, Technical Sales Manager, ASEAN, Evonik Degussa SEA Pte Ltd, Singapore

In any modern livestock operation, the main focus is to optimize cost per unit of product. There have been continuous efforts in improving livestock performance through improvements in breeding/genetics, housing, management, health status and nutrition, among others. Out of these components feed costs often contribute more than

60% of the total production cost. The task for nutritionists is therefore to come up with good quality feeds at the lowest possible cost. In order to achieve such a very challenging task measures need to be taken in order to get the most out of the raw materials that is being purchased. This presentation will focus on how a thorough evaluation of the very variable protein sources meat and bone meal, rice bran and DDGS can affect and improve the value of these raw materials. The evaluation will include the different areas in feed production from raw material purchasing, raw material storage up until feed formulation.

Ms. Sheila Heidi M. Ramos comes from the Philippines and is the Technical Sales Manager for SEA of Evonik Degussa SEA Pte Ltd. She has been working with the company for almost five years and is responsible for promoting nutritional concepts such as the use of digestible amino acids in feed formulation, net energy and low protein diets in swine nutrition and the use of the ideal protein concept and the latest amino acid recommendations, among others. She is also responsible for Evonik Degussa's Near Infrared Reflectance service (AminoNIR®) in the region.

RAPID ANALYSIS PREDICTION OF AVAILABLE ENERGY IN FEED GRAINS

John Spragg, AusScan Program Manager, Pork Co-operative Research Centre, Australia

Research work has been completed obtaining data on the available energy content of a range of feed grains fed to different livestock species. Through the use of near infra-red (NIR) technology, a number of NIR calibrations have been developed and are now being used in Australia to determine available energy content of grains. The technology provides a low cost and rapid analysis method, allowing feed manufacturers to fine tune feed formulations. The technology also enables the marketing of feed grains based upon their energy content. The paper will detail the livestock feeding research that has been completed and the commercial application of the technology for the feed industry. Data will be presented on the variation that naturally occurs in feed grains and how different grains are better suited for each livestock species. The link between grain physical and chemical characteristics and its available energy content will be discussed. The technology has use within the Asia Pacific Region in assessing feed grains utilized in animal feeding applications.

John Spragg operates his own agribusiness consulting company, JCS Solutions. Through JCS Solutions, John fills the role of Executive Officer for the Stock Feed Manufacturers' Council of Australia. In addition, John works as the AusScan Project Manager for the Australian Pork Co-operative Research Centre. John also works for the Australian Grains Research and Development Council in development of feed grain market development strategies. John has worked within the Australian animal nutrition and stockfeed industries for 25 years, developing over this time an extensive technical and management experience base. John is a member of a number of national working groups addressing feed regulatory control issues on behalf of the feed industry.

BACTERIAL CONTROL IN FEED PRODUCTION AND PROCESSING - WHAT ARE THE OPTIONS AND BENEFITS

Ferdie Nel, Feed Technology Specialist Asia Pacific, Anitox

Bacterial contamination of animal feed can be a source of infection for food producing animals. Given its importance as a human pathogen, Salmonella is perceived to be the major hazard for animal feed, however, the presence of other bacteria such as E.coli and Clostridium Spp are also of significant importance. This paper will look at the level, type and frequency of bacterial contamination in commonly used feed materials. The adverse effects on livestock consuming such feed will also be considered, along with the benefits achievable through improved bacterial control. As a reduction of bacterial contamination in the feed and prevention of re-contamination typically requires the use of chemical and physical control measures, the options available to help achieve this will be reviewed. The relative advantages and disadvantages of the various methods will be evaluated, both from technological and economic perspectives.

Ferdie Nel is Anitox's Feed Technology Specialist for the Asia Pacific Region. Ferdie has international feed milling experience and has managed milling operations in Africa and the Middle East. Ferdie currently works in the Asia Pacific Region where he provides Anitox's Clients with after sales service which includes product trials, product application and safety training, site surveys as well as advice on general milling equipment configuration and use. He has been working in the feed milling industry for 16 years and hold a B.Sc. Agric Hons degree in animal nutrition from the University of the Free State in South Africa, and an MBA degree from the University of Phoenix in America.

TRACE MINERALS - QUALITY CHALLENGES AND PROTECTING OUR BUSINESS

Tara Jarman, Asia Pacific Quality Assurance Manager, Alltech, USA

For consumers, safety is the most important ingredient. There have been quite a large number of safety scares in recent years with trace mineral sources. Contamination of trace minerals is a global problem, but the sources of contamination are often common and traced back to Asia - mainly China. Risks factors include Dioxins, PCBs and Heavy Metals. It is a company's responsibility to ensure that their products are safe for use, and tailoring a quality control program to evaluate such risks goes a long way to address this challenge.

Ms. Tara Jarman is the Asia-Pacific Quality Assurance Manager for Alltech. She is based in Thailand at the Alltech Asia-Pacific Bioscience Centre. Ms. Jarman holds a degree in Aquaculture from the University of Tasmania, Australia. She has worked as a Microbiologist, with experience in product testing, factory hygiene, SOPs control, GMP and Quality Systems. Ms. Jarman is responsible for the quality of Alltech products and facilities in the Asia-Pacific region.

SODIUM BENZOATE - A PROMISING ACIDIFIER FOR PIGS

Dr. Li Li, Technical Manager, Kemira Asia Pacific, Singapore

Growing concerns about environmental pollution as a result of excessive manure production or ammonia emission from piggeries, and most importantly, ban on using in-feed antibiotics for swine in many countries, forced pig researchers to find reliable and environmentally friendly alternatives. Inspired by the outstanding performance of short-straight-chain organic acids in livestock production, animal scientists have been continuously researching the organic acid family in order to find the next novel generation of animal health and growth promoters. Recently there is a developing interest in sodium benzoate ($\text{NaC}_6\text{H}_5\text{CO}_2$), the salt form of benzoic acid ($\text{C}_6\text{H}_5\text{COOH}$), which is classified as the aromatic carboxylic acid. This paper will focus on the characteristics of sodium benzoate, its potency as an antimicrobial agent and growth promoter in pig nutrition.

Dr Li Li is the senior specialist Technical support, Feed, Chemsolutions at Kemira Asia Pacific, Singapore. She holds a Bachelor degree in Oil & Fat Engineering; a Master of Rural Science and a PhD in Animal Nutrition. From 2002 - 2004 she worked for the Pig & Poultry Production Institute, SA, Australia and from 2007 - 2008: University of New England and NSW Department of Primary Industry, Australia.

OPTIMIZATION IN THE ROUND - THE BIGGER PICTURE: TAKING ACCOUNT OF NON-NUTRITIONAL PARAMETERS SUCH AS PLANT AND ENERGY CONSTRAINTS WITHIN THE FORMULATION PROCESS

Ian Mealey, Head of Operations, Format International Ltd., U.K.

Whilst achieving the least cost recipes within nutritional specifications is the main purpose of feed formulation software, the decisions made by formulators in these recipes can have unforeseen consequences when it comes to their production; consequences which can have a significant impact on the rest of the process and the true cost of the finished product. These aspects can be hidden from, or even ignored by formulators, but, if taken into account, may have alter ingredient purchasing decisions, plant design, production costs and, ultimately, profitability.

This presentation looks at some techniques which can be used in formulation software to incorporate these wider considerations, giving the formulation role a broader perspective and resulting in a better model of the feed manufacturing process.

Ian Mealey gained his BSc Agriculture from Edinburgh University, Scotland. He then worked for a feed manufacturer in Northwest England, gaining a wide range of experience. His responsibilities including production QC and then finally formulations manager. Ian joined Format in 1997 as Support Specialist, then Account Manager and is now Head of Operations.

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