Networking Nationally from Hyderabad

POULTRYLINE

Readership — Poultry Wide

VOLUME - 16 | ISSUE - 4 | ANNUAL SUBSCRIPTION RS. 500/- | APRIL 2016 | Rs. 50/-

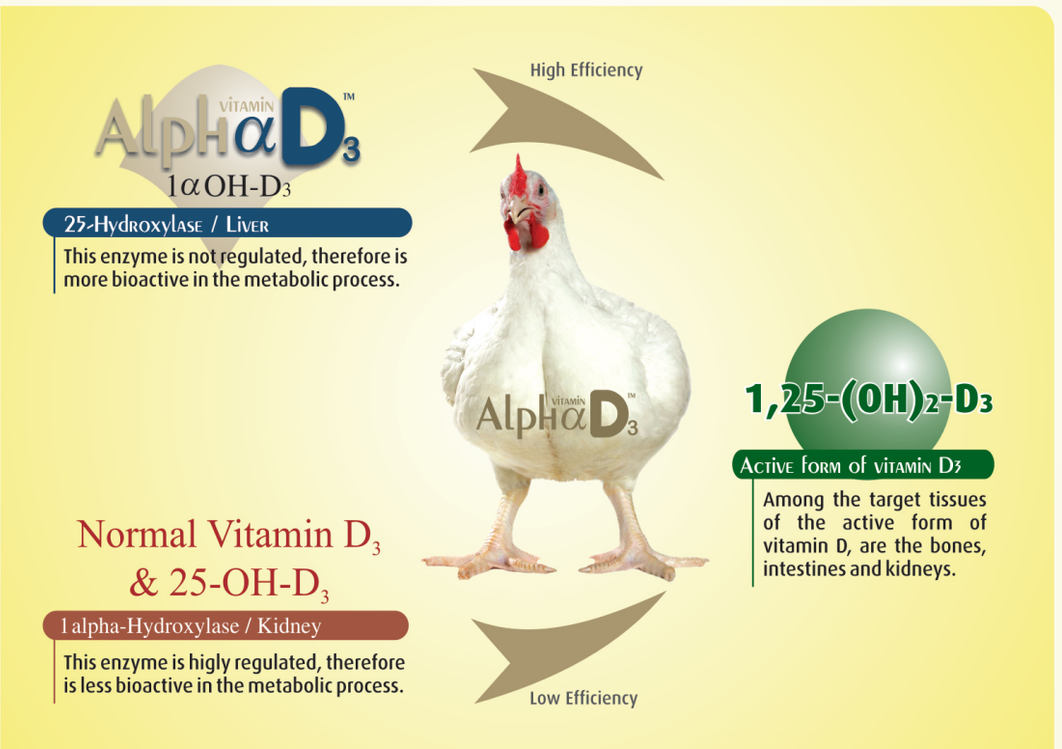
chembond®

INTRODUCES

AlphaD3™ Vitamin

NOVEL AMERICAN RESEARCH PRODUCT

10 times more Bioactive than Conventional Source of Vitamin D_3



- Helps to prevent Tibial Dyschondroplasia
- Minimizes Egg Breakages
- Helps to Improve Hatchability

Available in Concentrate & Premix form

chembond®

for further details please write to:

Chembond Chemicals Ltd

Chembond Centre, EL-71, MIDC Mahape, Navi Mumbai-400 710, India
Tel.: +91 22 3921 3000 • Fax: 91 22 2768 1294
• Email: Info@chembondindia.com • www.chembondindia.com

IB GROUP OFFERS:

IB-ROSS Parent Stock Chicks
IB-ROSS Parent Stock – Partnership Farming (Integration)
IB-ROSS Commercial Chicks - Partnership Farming (Integration)
IB-ROSS Hatching Eggs
IB-ROSS Commercial Chicks

IB-Production Capacity:

» About 5000 MT/Day of Poultry, Floating Fish, Shrimp Feed and Pet Food.
» 1800 MT/Day of Soya Solvent Extraction.
» 10 Lakh Broiler Breeding Stocks.

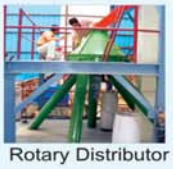
INDIAN AGRO & FOOD INDUSTRIES LTD.
Corporate House, Indamara, Rajnandgaon,
Chhattisgarh - 491441, India.

Cell: +91-78988 01916
Fax : 088178 44623
Email: mail@ibgroup.co.in
Website: www.ibgroup.co.in

"Others judge us by what we have already done while we judge ourselves by what we are capable of"

Having the experience after execution of so many Pellet Projects, we have now developed a strong team of professionals in our engineering and service departments who have been trained in the respective fields and are now in a position to undertake the necessary plant engineering and execution of complete projects from India and abroad of any capacity with optional auto bagging or auto batching (pre-weiging), single line to multiple lines. To find more about these and our complete range of other products, please log on **www.larkenggco.com**

Computer Control



Rotary Distributor

Hammer Mill on Ground Floor

Pellet Cooler

Pellet Mill

Mixer with oil Dosing

In our compact pellet plant series, we have recently executed following feed mills:-

- Anmol Feeds - Bhiwadi, Haryana
- Shree Krishan Kripa Feeds - Panipat, Haryana
- Hygiene Feeds - Panipat, Haryana
- Unnat Feeds - Panipat, Haryana
- Mehta Feeds - Hazaribagh, Jharkhand
- Safal Feeds - Loharu, Haryana
- J.B. Feeds - Kurali, Punjab
- Venky's India - Ambala, Haryana
- AFI Agro - Khanna, Punjab
- Universal Feeds - Jind, Haryana
- Mor Poultries - Jind, Haryana
- Aarambh Feeds - Mathura, Uttar Pradesh
- Maharashtra Feeds - Jammu
- Venky's India - Allahabad, U.P.
- S.S.V. Grower Hatcheries - Bidar, Karnataka
- Unnat Feeds - Jaipur, Rajasthan
- Maharashtra Feeds - Rajpura, Punjab
- Shiv Shakti Industries - Raxaul, Bihar
- Global Agro Products - Chitwan, Nepal

Our Innovation Your Success

Compact Design
Minimum Structure
State of the Art Technology
High Quality Feed
Low Power Consumption
Maintenance Free
Best Value for Money

Stainless Steel Hi-Chrome Dies

Lark Engineering Co. (India) Pvt. Ltd.

Contact:
* Pellet - 092154-59685 * Dies - 092156-59685
* Mash - 092153-59685 * Spares- 092558-92052

Sasouli Road, Jagadhri Workshop, Yamuna Nagar - 135 102 (Haryana) India
•Tel.:91-1732-254685, 259685, 328084 •E-mail : info@larkenggco.com Web: www.larkenggco.com

PROMOIS
INTERNATIONAL

PROMOIS NEW GAZETTED BAGS

Get the most benefits from Encapsulated Promois Amino Acids

PROMOIS INTERNATIONAL

Correspondence address

Promois International
Ul. Zemlyanoy Val, 9
Moscow,
Russia, 105064
Tel :+74952871354

Promois Life Sciences
101, Kitchener Road,
Jalan Besar Plaza,
02-31B,
Singapore 208511

Promois International
16F Hankyu Terminal,
Sschibata 1-1-4 Kita-ku,
Osaka-sschi
Osaka 530-0012 Japan

Promois International
Zurich City Centre,
Stockerhof,
Dreikoenigstrasse 31 A,
Zurich, 8002, Switzerland

Promois International
Mafatlal House,6th Floor,
H.T.Parekh Marg,
Backbay Reclamation
Mumbai, 400020 - India

Effective Solutions for Mycoplasmosis

TIATEC™ 10 — Tiamulin Hydrogen Fumarate-10%

TIATEC™ 80 — Tiamulin Hydrogen Fumarate-80%

TYLOTEC™ 10 — Tylosin phosphate-10%

Granulated

Provet

For further information,please contact;
Provet Pharma Private Limited
No.9, 1st Floor, 2nd Lane, Chakrapani Street, Narasingapuram Extension,
Maduvankarai, Guindy, **CHENNAI - 600 032.INDIA**
Telefax : +91 44 2244 2124 & 2127 Email : info@provet.in
www.provet.in

VOL.16 ISSUE 04 APRIL 2016

POULTRY LINE
పౌల్ట్రీలైన్

CONTENTS

1. Environmental impact of intensive 13-16
- Dr. S.C. Edwin

2. Chinese Products in Indian 17-18
- Dr.S.K.Maini

3. I Am a Brand, I Stand Strong! 27-28
- Dr. Shirish Nigam

4. Reducing feed costs - a global 43-45
- Wolfgang Kaul

5. Broiler Rates 49

6. NECC Egg Rates 50

7. Summer Stress Management 59-62
- Rajalekshmi.M.

8. Press Releases

29-34, 46-48, 63-66, 75-82,91-98

TEJASVI PUBLICATIONS
2-1-444/16, 1st Floor, O.U.Road, Nallakunta,
Hyderabad - 500 044.
Ph: 040-2761 0027
Cell : 98493 68003, 93940 37347
E-mail : tejasvipoultryline@gmail.com
tejasvi_poultryline@rediffmail.com
www.poultryline.com

INDEX OF ADVERTISEMENTS

Particulars	Page No.	Particulars	Page No.
ABCA South Asia	Inside Colour 35	Merial	Inside Colour 9
Alltech Biotechnology Pvt. Ltd.	Inside Colour 10	Nright Nutrition Pvt. Ltd.	Inside Colour 38
A.P. Poultry Equipments	Inside Colour 70	Natural Herbs & Formulations	Inside Colour 87
ATA Packaging Products	82	Natural Remedies Pvt. Ltd.	Inside Colour 24
Avitech Nutrition Pvt. Ltd.	Inside Colour 71	Omega Group	Inside Colour 52
B.V. Biocorp Pvt. Ltd.	Title Cover I	Optima Life Sciences Pvt Ltd.,	Inside Colour 69
Bentoli AgriNutrition India Pvt. Ltd.,	Inside Colour 89	Polcheme Hygiene Laborates Pvt. Ltd.	Inside Colour 55
Biocare	Inside Colour 85	Poultry Consultancy Services	16
Biomin Singapore Pvt. Ltd.	Inside Colour 42	Promois Life Science	Inside Colour 6
Chembond Chemicals Ltd.	Title Cover II	Provet Pharma Pvt Ltd.	Inside Colour 8
Chistiya Poultry Services	Inside Colour 86	Quality Systems	Inside Colour 56
E W Nutrition GmbH	Inside Colour 3	Reddy Drugs Laborataries	Inside Colour 26
Eco-Mix Feed Formulations & Software	95	Rossari Biotech Ltd.	Title Cover III
Exotic Bio Solutions	Inside Colour 68	Sai Krishna Plastic Industries	Inside Colour 72
Guybro Chemical	Inside Colour 40	Simfa Labs Pvt Ltd.	Inside Colour 53
Huve Pharma	Inside Colour 51	Sree Lakshmi Hatcheries Pvt. Ltd.	12
Hy-Line Layers Pvt. Ltd.	Inside Colour 67	S.S. Associates	18
ICC Impex India Pvt. Ltd.	Inside Colour 90	Sylon Biopharma Pvt. Ltd.	Inside Colour 36 & 37
Indian Agro & Food Industies Ltd.,	Inside Colour 4	Sri Lakshmi Packaging Company	92
Indian Herbs Specialities Pvt. Ltd.	Inside Colour 54	Target Enterprises	45
Intas Pharmaceuticals Ltd.,	Inside Colour 73	Tata Chemicals Limited	Inside Colour 41
Interface Pharmaceuticals Pvt. Ltd.	Inside Colour 22	Trouw Nutrition International	Inside Colour 39
International Poultry Expo-2016	Inside Colour 86	Uttara Impex Pvt. Ltd.	Inside Colour 19
Karamsar Poultry Appliances	47	Varsha Group	Inside Colour 25
Kemin Industries South Asia Pvt Ltd.	Inside Colour 58	Venkateswara Hatcheries Pvt. Ltd.	Title Cover IV
Lark Engineering Co. (India) Pvt. Ltd.	Inside Colour 5	Vetoquinol India Animal Health Pvt. Ltd.	Inside Colour 57
Lubing India Pvt. Ltd.,	Inside Colour 84	Volschendorf Enterprises Pvt Ltd.,	Inside Colour 20
Lumis Biotech Pvt. Ltd.	Inside Colour 84	Zeus Biotech Limited.	Inside Colour 74
Maab Poultry Automation	Inside Colour 83	Zoetis India Limited	Inside Colour 7
		Zydus (Cadila Healthcare Ltd.)	Inside Colour 21

Environmental impact of intensive Poultry production and possible remedial measures

Introduction

Indian poultry farming has undergone significant changes in the recent past time. Three decades back, 70 per cent of poultry population was contributed by native chicken and were reared under foraging system but today, 80 per cent is occupied by exotic birds and are reared under intensive system. The trend of "production by masses" is changed into "mass production". Though mass and integrated production is the good sign of profitable marketing, handling of huge waste generated should be addressed without compromising environmental and public health implications.

It is evident that poultry production in India is not spread uniformly through the country but they are present in few discrete locations. For example, 45 million layer birds are housed within 50 km radius of Namakkal in India. The disposal of unprecedented amounts of poultry waste generated in these locations poses significant challenges.

Poultry manure is traditionally considered as a good source of nutrients for the amendment of soil but in many cases due to intense production, it turned into a liability and a problematic byproduct for degradation of ecosystem and public health. Intense poultry keeping creates indoor pollution hazards for workers and farmers and a significant source for outdoor pollution for the public. The entire supply chain from feed production to animal production and slaughtering creates environmental impacts. Understanding the impact of intensive poultry production on air, water and land will help to find suitable remedial measures for sustainable poultry production.

1) Issues at farm level

The common issues at farm level are odour, flies, rodents and dusts. These factors have direct impact on famers, labours and neighbours.

a) Odour

The impact of poultry farm odour depends on the subjective perception of populations neighbouring the farm. Odour is caused by ammonia (NH3), volatile organic compounds and hydrogen sulphide (H2S). It is hardly quantifiable and difficult to evaluate the maximum distance over which odorous gas travels. However, odour problems are generally concentrated within 500 meters of the farm. Although generally not causing any public-health concern, odours can represent a strong local problem that is frequently reported by farms' neighbours as the most disturbing environmental impact. The emission of odours mostly depends on frequency of manure removal and cleaning, temperature and humidity of the manure, type of manure storage, and prevailing air movements. For these reasons, odour is generally higher in waterfowl farms than in chicken farms.

b) Flies

Most of the egg-type chickens in India are reared in elevated cage houses, unlike meat-type chicken that are reared in deep litter system. When birds are reared in cages, there is no contact between birds and droppings that facilitates breeding and multiplication of flies without any hindrance. The housefly completes a cycle from egg to adult in 6 to 7 days when temperatures are from 80 to 90°F. Females can produce 600 to 800 eggs, larvae can survive burial at depths up to 4 feet, and adults can fly up to 20 miles. Large populations of flies can be produced relatively quickly if the correct environment and moisture is provided. Researches revealed that residences that are located in close proximity to poultry facilities, i.e., within half a mile, had 83 times the average number of flies. In addition to the nuisance, they serve as vectors for transmission of diseases.

c) Rodents

Managing poultry farms free from rodents is difficult since several hiding places are available; in addition to the availability of plenty of tasty feed. Rodents consume a considerable quantity of feed and also contaminate the feed and water meant for poultry. Apart from direct detrimental effects of rodents, they are the potent source for inviting snakes nearer to poultry farms that is dangerous to the persons working in poultry farms and also to the neighbours.

d) Dusts

Dust from poultry farm is a combination of manure solids, dander, feathers, hair, and feed. It is very difficult to eliminate from animal production units. It is typically more of a problem in buildings that have solid floors and use bedding as opposed to slotted floors. Dust is generated through feed deliveries, vehicles movements, manure stockpiles, general site operations and on site feed mills. The severity of dust is more from feed mills than the rearing area.

2) Issues at local and regional level

Localization of poultry farms with larger capacities is a threat to the residents and may pollute the soil and water

with nutrients, pathogens and heavy metals. Some of the issues at local and regional level are,

a) Possibility of zoonotic diseases

Fortunately, most of the poultry diseases are not zoonotic in nature. However, few diseases, especially avian influenza is a consistent threat to those living along with poultry. The origin of avian influenza and the reasons for the evolution of highly pathogenic avian influenza virus (H5N1) are still uncertain, although some evidence indicates that the enormous growth in intensive poultry production with relatively low bio-security has provided favourable environment for the virus to evolve.

b) Pollution due to poultry manure

Poultry droppings contain considerable amounts of nutrients such as nitrogen, phosphorus, and other excreted substances such as antibiotics, pathogens and heavy metals which are introduced through feed. Leaching and runoff of these substances has the potential to result in contamination of surface water and groundwater resources.

i) Nutrients

Birds reared in intensive production systems consume a considerable amount of protein and other nitrogen-containing substances in their diets. The conversion of dietary nitrogen into egg or meat is relatively inefficient; 50 to 80 percent of the nitrogen is excreted. Nitrogen is excreted in both organic and inorganic compounds. Nitrogen emissions from manure take four main forms: ammonia (NH3), dinitrogen (N2), nitrous oxide (N2O) and nitrate (NO3-).

Phosphorus is emitted from manure in the form of phosphate (P2O5). Unlike nitrogen, phosphorus is relatively stable once attached to soil particles and does not leach through the soil into groundwater. It does not pose any environmental risks except as a nutrient; it limits biological activity in water resources and builds up in soil when applied in excess.

ii) Heavy metals

Manure contains appreciable quantities of potentially toxic metals such as arsenic, copper and zinc. In excess, these elements can become toxic to plants, can adversely affect organisms that feed on these plants, and can enter water systems through surface run-off and leaching. Trace elements are introduced into poultry diets either involuntarily through contaminated feedstuffs or voluntarily, as feed additives used to supply animals' requirements or in much greater proportions as medicines or growth promoters.

iii) Drug residues

Antimicrobial agents are administered to poultry for therapeutic reasons or to prevent illness (prophylaxis). At much lower doses (subtherapeutic doses) antimicrobial agents are used as feed additives to increase the rate of growth and to improve feed efficiency. Irrespective of dosage, an estimated 75 percent of antimicrobial agents administered to confined poultry may be excreted back into the environment.

iv) Pathogens

Manure also contains pathogens which may potentially affect soil and water resources, particularly if poorly managed. Parasites such as Cryptosporidium and Giardia spp. can easily spread from manure to water supplies and can remain viable in the environment for long periods of time.

v) Oxygen-Demanding Substances

When manure is discharged to surface water, biodegradable material is decomposed by aquatic bacteria and other microorganisms. During this process, dissolved oxygen is consumed, reducing the amount available for aquatic animals. Severe depressions in dissolved oxygen levels can kill the fishes.

c) Pollution due to dead birds

Improper disposal of poultry carcasses can contribute to water-quality problems especially in areas prone to flooding or where there is a shallow water table. Methods for the disposal of poultry carcasses include burial, incineration, composting and rendering. In the case of recent highly pathogenic avian influenza (HPAI) outbreaks, the disposal of large numbers of infected birds has presented new and complex problems associated with environmental contamination. Large volumes of carcasses can generate excessive amounts of leachate and other pollutants, increasing the potential for environmental contamination.

d) Pollution due to pesticides

Pesticides used to control pests (e.g. parasites and disease vectors) and predators have been reported to cause pollution when they enter groundwater and surface water.

d) Pollution due to slaughter house waste water

he most significant environmental issue resulting from slaughterhouse operations is the discharge of wastewater into the environment. Like many other food-processing activities, the necessity for hygiene and quality control in meat processing results in high water usage and consequently high levels of wastewater generation, having high biochemical and chemical oxygen demand (BOD and COD) due to the presence of organic materials such as blood, fat, flesh, and excreta which in turn may lead to reduced levels of activity or even death of aquatic life. Residues of chemicals such as chlorine, used for washing and disinfection, as well as various pathogens including Salmonella and Campylobacter may also present in the water. In addition, process wastewater may contain high levels of nitrogen and phosphorus which

may cause eutrophication of the affected water bodies.

e) Development of drug resistance

Recent evidence suggests that the interaction between bacterial organisms and antimicrobials in the environment may contribute to the development of antimicrobial-resistant bacterial strains. Antibiotics and related antimicrobial compounds are widely used in poultry farms to treat diseases, to promote growth, and to improve feed efficiency. Many antimicrobials used in the poultry industry are provided in the feed throughout the lifetime. Much of this intake is being excreted. Therefore, antimicrobials applied in farming operations can and do find their way into the receiving environment, where they can be present either as the parent compound or as a metabolite.

In many instances, these excreted antibiotics are not efficiently degraded, and the resulting residues can promote the development of antibiotic-resistant microbial populations. Thus, cyclic application of manure on the same location may result in the continuous exposure of soil microbes to antibiotic residues, thereby fostering the potential development of drug-resistant microbial populations.

Amelioration of environmental issues due to intensive poultry production

1) Nutritional management

The aim of the nutritional management is to reduce the pollution load by formulating balanced diets and to improve the utilization efficacy of the birds. Optimal nutrients balancing and feeding regimes improve the feed efficiency. Some of the measures employed under nutritional management are,

Formulating diets that closely match the nutritional requirements of birds based on their production level and the stage of growth to reduce the amount of nutrients excreted by following phase feeding, separate sex feeding etc.

Use of low protein diets supplemented with synthetic amino acids

Formulating low phosphorus diets with highly digestible organic phosphates

Improving feed digestibility and nutrient bioavailability through the use of dietary supplementary enzymes, highly digestible genetically modified feed ingredients such as low phytate maize, and highly digestible synthetic amino acids and trace minerals

Using good quality and uncontaminated feed for poultry

2) Manure management

Environmental risks are reduced when manure is applied in amounts and at times that correspond to crop requirements. Water and feed borne disease propagation due to poultry manure can be prevented by:

Storing manure in closed buildings or bags allow the producers to hold manure until a convenient and optimum time for use. It also reduces the emissions of gaseous compounds to the air, and the risk of environmental contamination as compared to the risk associated with leaving manure exposed

Storing the manure for one to two months before its application on land or fish ponds

Composting manure potentially reduces or even eliminates certain pathogens and fly larvae, and improves the handling characteristics of manure and other residues by reducing their volume, weight and moisture content

Drying minimizes the moisture content of manure, inhibits chemical reactions, and thus reduces emissions

Proper timing and rate of manure application are the critical management factors. Manure must be applied at the correct time of year to prevent losses to surface water, groundwater and the atmosphere, and to optimize the utilization of manure nutrients by growing plants.

3) Proper disposal of dead birds

There are generally three methods of dead bird disposal currently in practice:

Composting - When dead birds are mixed with some carbon sources aerobically for a period of 3 months will yield odorless compost, which is very good organic manure to crops. The preferable C:N ratio of compost is 20-30:1 and the moisture content is 45-60%.

Offsite disposal - It generally involves removal to an offsite burial site or to a rendering plant. Offsite disposal is usually required during mass mortality events.

Onsite disposal - involves burial or incineration and has implications for the management of environmentally sensitive factors including leaching of nutrients into surface or ground water, air pollution and odour generation.

Farm practices for the management of dead birds must be consistent with the current industry bio-security code. All dead birds should be disposed of within 24 hours of dying with the farm adopting a contingency plan for the disposal of dead birds associated with a mass mortality. Where dead birds are removed from the farm they should be collected in enclosed containers and removed daily or stored in a freezer until regular collection is undertaken. Dead bird collection vehicles and all containment systems should be leak proof and vermin proof.

On site burial of dead birds should also only be undertaken in the case of emergency and with the approval of relevant authorities. Burial sites are to be located out of public view, with the bottom of the burial pit being at least 3 meters above the maximum groundwater table and designed so that no surface or subsurface seepage can enter the pit. The final cover of the pit should be at least 1 meter of compacted clay soil. On site incineration of dead birds is only to be undertaken in the case of emergency and with the approval of relevant authorities. Incineration units are to be out of public view or enclosed in a shelter and the units must incorporate after-burners to eliminate smoke, odour and air emissions.

4) Noise management

Minimum sound production from poultry farm in unavoidable due to normal physiological activities of the birds. However careful site selection and farm design with adequate buffer distances to sensitive environments will minimize noise pollution. Using dense vegetation buffer screens disperse odour from poultry farms.

5) Dust management

Proper road facilities for the movement of vehicles in and around production facilities minimize the dust production during vehicle movements. The transportation of potentially dust generating materials should be done through enclosed vehicles to minimise emission levels. Temporarily stored manure and/or litter should be covered to prevent dust emissions and litter moisture levels should be monitored and maintained between 15% and 30%.

Conclusion

Intensive production is inevitable to get more profit per unit land area. However, the associated problems of mass production like environmental pollution and possible threat of zoonotic diseases should be taken care of. Compared to other livestock species, poultry performs well from an envi-ronmental perspective. A substantial comparative advantage that poultry has over other animal sectors relates to its efficiency in feed conversion. For cattle in feedlots, it takes roughly 7 kg of grain to produce a 1 kg gain in live weight. For pork, the figure is close to 4 kg per kg of weight gain and for poultry it is just over 2 kg. Another comparative advantage lies in the low water content and high nutrient content of poultry manure.

Involvement of higher cost for establishing waste disposal system is the major hurdle while addressing the environmental issues of intensive poultry production. Since top priority is given to human health, allocation of reasonable amount for preventing environmental pollution will protect the larger poultry farms in future.

Chinese Products in Indian poultry Market

Union Commerce and Industry Minister Ms Nirmala Sitharaman, speaking at the Global Biotechnology Summi on Friday (5/02/2016) at Delhi, expressed her concern and was worried abc ut the import of API's (Active Pharmaceutical Ingredients) and Pharma Intermediaries (Pl's), India imported 3 billion dollar's worth of API's and Pharrr a Intermediaries every year, during the past 2 to 3 years , of which the Chinese Share was in excess of 1.8 billion dollars per year.

It is true, the Chinese have flooded several markets worldwide including India, with their cheap products in sevE ral different fields, though these products sell well around the world in very large numbers/ quantities, but with no guarantee of their life, working and efficieni:y. It is always said "Chinese maal ki koi guarantee nahein hoti".

Unfortunately the Indian Pharmiteuticals and Poultry Industry, trusts the Chinese products more than thei- own and consumes Chinese pharmaceutical and nutritional products in a verb big way as stated by the Minister, neither the regulators nor the importers, dis ributors, traders or the end users ever analyze these products before using them, these products have flooded our market based on their lower international price and the large margins and commissions paid to the importers and their distributors/retailers/sellers.

The fact is during the last 10 to 12 years, Chinese pharmaceutical and nutritional products in the Indiar Poultry market have increased several folds and so have the diseases and their complications, our experts always talk about the new and emerging diseases, bio-security, feed cost reducing ideas, using new products and ingredie its for poultry's benefits, while no one ever thinks about the use of these Chinese Products and their benefits or complications for the poultry industry. Please have a look at the below given table, more than 90 % of the pro iucts are manufactured in China.

Available from ex-stock

Biotin Pure / 2% Feed Grade	China / Zagro	Vitamin C Plain / Coated	China / India
Calcium D Panthotheate	Chin 3	Vitamin E 50% Feed Grade	BASF / Belgium
Chlortetracycline 15%	Chin a	Vitamin E Acetate	BASF
Diclazuril 05%	Chin 3	Ciprofloxacin HCL	China / India
DL-Methionine Feed Grade	Sumritomo / Degussa	Doxycycline HCL	China
Folic Acid	China	Furazolidone	China
L-Lysine Feed Grade	Sewon / Ajinomoto	Inositol NF	China

Maduramycin Ammonium 1%	China	Levofloxacin	China
Salinomycin 12%	Chira	Lincomycin HCL	China
Tylosin Phosphate 10%	Chira	Neomycin Sulphate	China
Vitamin A Palmitate 1.7 miu	Chiba	Norfloxacin	China
Vitamin AD3 Double Strength	BASF	Ofloxacin	China / India
Vitamin B1 HCL / Mono	Chir a	Oxytetracycline HCL	China
Vitamin B2 Pure / 80% Feed Grade	BAS F / China	Paracetamol	China / India
Vitamin B6	Chir a	Tetracycline HCL	China
Vitamin B12	Chir a	& Many more	

By using the Chinese products we are failing the Prime Ministers " Make in India" program and increasing the risk of sabotage to the Indian Pharmaceutical and Poultry Industry, denying opportunities to Indian Manufacturers to produce and rr arket their own products, inviting trouble from an international competitor in the field of pharmaceuticals and poultry besides why will any sensible Chinese Exporter ever think about a healthy Indian pharmaceutical and poultry industry, more the problems more will be their sales and profits.

I urge all concerned with the Pharmaceutical and Poultry Industry in India, the Drugs Dept, the Animal Husbandry Depts, and other Depts that are concerned with the imports regulations, to look into, think and do something concrete in this direction, to protect our present interests, the interests of our future generations, and make our Prime Ministers " Make in India" program a success.

UTTARA IMPEX PRIVATE LIMITED

V H GROUP

Venky's

Specification

ASSAY	: NLT. 60.00%
Moisture	: NMT. 03.00%
TMA	: NMT. 00.05%

- Prevents Fatty liver syndrome
- Prevents bone abnormality or Perosis in chicks
- Improves body Immunity system to prevent diseases.
- Improves FCR & Growth
- Improves Carcass Quality
- Improves egg production

OUR OTHER PRODUCTS:

For Trade Enquiry Contact:

North India : Hariom Chauhan / +91 9552526901hariomsingh.chauhan@in.venkys.org **Punjab / Barwala :** Naveen Kundal / +91 8558801527
Haryana : Aditya Kumar / +91 9996211882 **West India :** Kunal Goswami / +91 8888858839 / kunal.goswami@sg.venkys.org
Maharashtra : Swapnil Ballal / +91 9689948713 **Tamilnadu :** Rajagopal / +91 9489606402
South India / Telangana / Andhra Pradesh / Orissa : Shankar Reddy / +91 8008802148 / shankar.reddy@in.venkys.org

volschendorf®

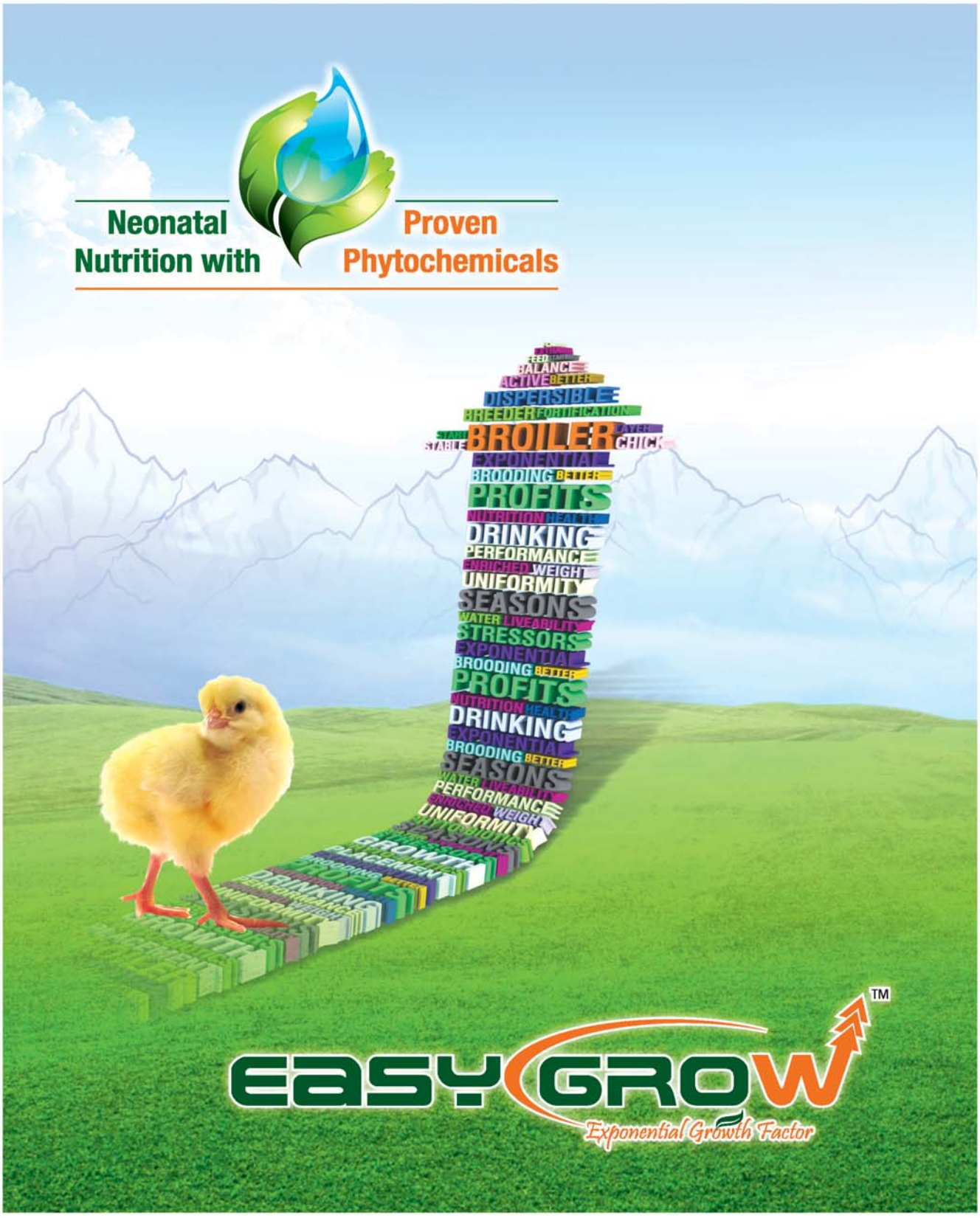
Grainase®-P5000

Thermostable phytase

Perfection does matter

VOLSCHENDORF ENTERPRISE PVT. LTD.

☎ +91 22 25976100 / 6300 +91 22 25976400 sales@volschendorf.com www.volschendorf.com



NATURAL REMEDIES
Nature | Science | Health | Happiness

Regd. office & Factory : 5-B, Veerasandra Industrial Area, Bangalore - 560 100,
Ph: 91 80 27832265, 40209999, Fax: 91 80 40209817
E-mail: sales@naturalremedy.com, **Website:** www.naturalremedy.com

I Am a Brand, I Stand Strong!

Rapid growth of Indian poultry industry is driven by a combination of rising incomes, young and urbanizing population and declining real poultry prices. The vertical integration in the poultry industry and the retail boom in India are paving way to organized retailing.

It is always the first mover in an industry that gets the advantage of establishing itself as a brand by showcasing its quality/new product.I would like to mention a classic example in the context of the above statement: The first person to land on the moon was Neil Armstrong. No one remembers the second person.

But everything comes down to a simple question. Why is branding so important? The answer is easy: Brands create value!In this article we try to highlight the same fact through an overview of some of the best brands in poultry worldwide. Extensive primary as well as secondary research has been carried out by the author of the paper in order to provide the useful information to all the readers.

All the big brands in the world have grown in two ways:

a) Organically

b) Inorganically

Organic growth focuses on improving productivity to increase the bottom line and reinvesting profits in new assets for greater income.

Inorganic growth involves merging or buying another company to get larger customer base and new channels of distribution.

Tyson Foods, Inc.

Sanderson Farms and Tyson Foods are the two most renowned companies in the world of processed chicken. Sanderson Farms is an example of organic growth while the Tyson Foods has established itself over the years preferring an inorganic growth path. Both though, started as small establishments in USA and are today recognized for their brands, giving tough competition to each other.

Started in 1937 as Tyson Feed and Hatcheries and then as Tyson's Foods Incorporated, we today widely recognize Tyson Foods. Initially, they started with expanding production facilities by opening up new processing plants. Gradually they went on to buy out several small poultry concerns to meet their aim of higher production of processed chicken. They even diversified with their acquisitions of various food and poultry divisions of bigger companies once their brand started getting some recognition. Two important steps in establishing the Tyson brand were the advertising strategies:

1. In the initial years of success, Tyson Foods started printing "Tyson Country Fresh" on its wrappers instead of the supermarket's name where they sold their chickens.
2. Tyson Foods came up with its advertising slogan "Doing our best….just for you" which played on all major television channels in the US.

A stepping stone in its brand establishment was Tyson Food's acquisition of Holly Farms Corporation, the national leader in brand name chicken sales in USA, as Tyson's fast-food chicken business had put a strain on its production facilities. Hence Holly Farms' chicken supply was needed to make the name Tyson popular in grocery stores as well and not just with institutions and restaurants.Over the years as problems of oversupply of chicken and lower prices started looming up on the company's profits, the acquisition of Iowa Beef Packers, the world's largest beef processor turned the tables for Tyson Foods. They became the largest diversified meat company in

the world and the profits tripled in the following years.

Tyson Foods also innovated continuously. Its innovative, easy-to-prepare products had caused a jump in the consumption of poultry nationwide in USA. It even introduced the deep-chill process which enabled the meat to stay tender and even doubled its shelf life to about 25 days.

Looking at the business growth story of Sanderson Farms, they initially started with the process of vertical integration. But thereafter it focused on expanding its capacity, growth and market share by building new processing facilities all over USA. Sanderson Farms has adopted the strategy of increasing the capacity continuously and targeting its value-added products in the big bird deboning market, the most profitable section of the poultry market in the US in order to minimize the risk of fluctuations of spot commodity chicken prices.

Sanderson Farms possesses a higher return on equity than any of its competitors. This is indicative of its efficient operations as well as a strong management. Their slogans of "The People With The Tender Touch", "We Do Chicken Right" or "Simply The Best" caught attention of large populations in those days leading to the establishment of Sanderson Farms as a leading brand.

Both these brands are examples from the developed part of the world, USA, where the per capita income is $49782 and the broiler price is $1.29/kg. On the other hand, in a developing country like Brazil with a much lower per capita income of $14301 but a higher broiler price of $1.42/kg, JBS has been an outstanding example of a world recognized brand.

JBS, Brazil has also preferred the inorganic method of growing, undertaking several successful acquisitions. Till the last decade, JBS was only successful in Brazil but today they are known worldwide due to the efficient vertical integration model they followed.Their strategic acquisitions like Pilgrim's Pride and Tyson's poultry

operations in Brazil and Mexico are the reason for their global success.

With their marketing campaigns like "You Can Rely on Friboi" and "Working Together for Successful Cattle", JBS has maintained a place in the people's minds as a quality brand.

In order to have a look at the financials of the three companies being studied, we have the following data for the financial year 2014-15:

Measure	Tyson Foods	Sanderson Farms	JBS, SA
Market Capitalization	19.77bn	1.71bn	7.51bn
P/E Ratio	16.94	7.97	5.57
Return on Equity	13.15%	22.41%	20.82%
EBITDA Margin	7.49%	14.66%	8.55%
Profit Margin	2.95%	7.71%	3.69%

Source: Yahoo Finance/Company Balance Sheets

Such strong financials are a proof of how the brands have been standing strong despite various ups and downs in the meat industry and are likely to continue similarly in the future.

All of this clearly shows us that in a world full of risks of all kinds for the poultry industry, there is one factor that promises the de-commoditization for the chicken products and protects them from the risks- The Brand.

* Disclaimer: Trademark of the proprietary company

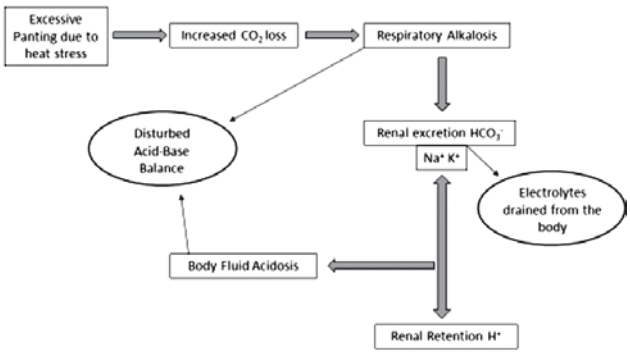
PRESS RELEASE

Dietary Electrolyte Balance; Implications on Heat Stressed Broilers

Avitech
Knowledge | Nutrition | Innovation

High temperature is a major limitation to growth and performance of birds in tropical countries. Reduced feed intake, growth rate, feed conversion, survivability, dressing yield, breast meat, total meat and increased abdominal fat are the immediate consequences of rearing broilers in a hot humid environment (Geraert, 1998). Decreased performance and reduced profitability of broilers are aggravated when high temperature is associated with high relative humidity (Charles et al., 1978). Summer mortality and reduced performance of the flock causes enormous loses to the poultry industry every year. This situation demands an efficient means to improve the thermo-tolerance of broilers in hot and humid environment.

Excessive loss of carbon dioxide (CO2) during panting reduces the partial pressure of CO2 in blood plasma. In turn, the bicarbonate buffer system lowers the concentration of hydrogen ions and causes a rise in plasma pH and plasma bicarbonate levels, which develops a condition known as respiratory alkalosis (Linsley and Burger, 1964; Calder and Schmidt-Neilsen, 1967). The birds attempt to correct blood pH by excreting HCO3- via the urine while retaining H+ (T. Ahmed et al, World's Poultry Science Journal, December 2006). Moreover HCO3- never goes alone, this loss is always accompanied with loss of Na+ and K+.



The blood electrolyte balance is closely associated with blood pH, gas pressure and HCO3- concentration (Darreet al., 1980; Teeter, 1997a and 1997b).During respiratory alkalosis, the shift in blood pH increasingly depresses the feed intake and adversely affects the overall performance of broilers. One of the consequences of heat stress is the change in the acid-base balance with the occurrence of respiratory alkalosis. That is why most of the other approaches fail, as the lost ions and the disturbed acid-base balance during heat stress is not taken into account. Therefore, one of the best methods used to control heat stress is the chemical management of the acid-base balance by supplementing feed or water with a balanced electrolyte supplement. Electrolyte supplementation has been reported to maintain acid base balance and thus improve performance of broilers reared in a hot environment (Balnave and Gorman, 1993). The addition of electrolyte salts to broiler chicken diets has been recommended as a way to minimize the deleterious effects of heat stress (Borges, 1997).

Electrolytes, in different amounts and proportions, prove beneficial for birds under different heat stress regimens. Several studies have been done on electrolytes where different environmental conditions existed during the experiment. Some of those conditions were controlled while others weren't; some were measured precisely and some left unrecorded. This lack of clarity led to the need to precisely define the proper electrolyte source, its amount and combination of different sources to have an appropriate Dietary Electrolyte Balance (DEB) for optimum broiler performance.

Dietary electrolyte balance

The proportion of Sodium, Potassium and Chloride in a diet determines the Dietary Electrolyte Balance.

DEB = {$Na^+ + K^+$? Cl-} mEq/Kg

The monovalent ions (Na+, K+ and Cl-) have a greater electrolytic potential than divalent ions (Mg+2, S-2, P-2 and Ca+2). Mongin omitted these divalent ions from the DEB equation due to the followings reasons:

a. Bivalent cations are not as rapidly absorbed as monovalent cations

b. Mg is commonly supplied in feeds

c. Phosphate is hard to be quantified because it comes from various sources

d. Calcium absorption rate is controlled by the endocrine system and is most commonly added as calcium carbonate for skeletal development

e. Sulphate is included in small amounts as the anion for essential trace elements, or to prevent methionine breakdown.

Intestinal and renal homeostatic regulation attempt to maintain normal body content of electrolytes, and this is generally affected by higher intestinal absorption of monovalent ions than divalent ions within the electrolyte supplements (Teeter, 1997). The "strong ions" Na+, K+, and Cl? have the greatest impact on acid-base balance or pH of blood and tissues. However, it is important to have the proper dietary ranges and ratios of these monovalent minerals without deficiency or toxicity, to meet poultry nutritional demands and achieve the best performance. Acids produced by metabolism (endogenous H+) also contribute to the acid-base balance.

Mongin concluded in 1980 that in order to keep the acid-base homeostasis as close to normal as possible, the bird has to regulate the input and/or the output of acidity. According to Mongin the net acidity intake can be measured by the difference between fixed anion and cations (Anion-Cation) intake. Likewise the net acidity output can be measured by the balance of ions excreted in the urine (Anion-Cation) outgo. The endogenous acid production (H+) by the metabolism of dietary components must also be considered.

Ingested (Anions ? Cations) + Endogenous H^+? Excreted (Anions ? Cations) = Zero

The above equation describes the steady state situation where the bird is in a constant acid-base balance, without either acid or base excess or deficiency. Under disturbed conditions (more acid intake or outgo) the blood base excess [base concentration in extracellular fluids (BEecf)] will get modified accordingly to achieve a steady state.

Ingested (Anions ? Cations) + Endogenous H^+? Excreted (Anions ? Cations) +BE_{ecf}= Zero

Diets formulated with a high anion content (Cl-) decreases blood pH and causes acidosis. Similarly high dietary cation contents (Na+, K+)increase blood pH and result in alkalosis. Both situations adversely affect the performance of birds. Hurwitz et al., 1973, while studying the impact of cation/ anion ratio [(Na++K+)/Cl-] noticed that broiler growth rate was the greatest when blood pH was 7.28 and it reduced when pH values were greater than 7.30 or lower than 7.20. While adjusting the DEB for maximum bird performance, care must be taken that the total levels of Na+, K+ and Cl- must be within the acceptable range, neither deficient nor toxic.

Optimum DEB

The bird's survivability during heat stress depends on the water consumption, which depends directly on bird's age and the EB of the diet. Birds which drink more water would be better able to reduce their high body temperature. The heat stress birds fed diets with EB of around 250mEq/kg showed better performance, well maintained blood physiological parameters (pH,HCO3, pCO2, BEecf, Hb, H, L, and H:L) and blood nutrients (viz. glucose) and also retained more electrolytes (Na, K and Cl) in an attempt to maintain the disturbed acid-base and electrolyte balance (T.Ahmed et.al.).

Mongin (1981) reported that optimal chick growth performance, when fed purified diets, was achieved using DEB of around 250 mEq/kg with a relation. Weight of birds, when assessed at 42d, decreased when DEB was lower than 180 mEq/kg and higher

than 300 mEq/kg (Johnson and Karunajeewa,1985). An optimal EB was found for feeds containing from 250 to 300 mEq/kg.

The DEB affects the bird's performance and the optimal ratio is considered around 250 mEq/kg. Very high and a very low DEB can result in metabolic alkalosis and acidosis. That is why such DEB should be avoided while formulating diets. Similarly, excess or deficiency of any particular mineral must be avoided while maintaining the DEB.

The primary role of an electrolyte supplement lies in the maintenance of the body's ionic and water balance. The requirement for strong (monovalent) ions that have characteristic effects on the body fluids homeostasis, should not be considered individually: it is the overall balance that is important. Valency of ions (mono or di), ionic balance, strength of the electrolyte supplement and its effect on DEB should always be considered while selecting a product.

Avilyte, a product from Avitech Nutrition Pvt Ltd, provides the ideal composition of electrolytes required to combat stress from extreme temperatures, handling during shifting and transportation, vaccination, de-beaking and production related stress. To know more about Avilyte, please contact us at:

Avitech Nutrition Pvt. Ltd
GP-37, Udyog Vihar, Sector-18, Gurgaon-122015, Haryana (India)
Ph: +91 124 4011147 / 4278511 / 4278512
Fax: +91-124-4013620
E-mail: marketing@avitechnutrition.com
Website: www.avitechnutrition.com

PRESS RELEASE

Vetline Participation in VIV MEA-2016 at Abu Dhabi.. Received Great Response..

Vetline, a leading player in animal nutrition and health, headquartered in Indore (MP)-INDIA, successfully participated in the first edition of the international poultry expo, "VIV MEA-2016" organized by VIV Worldwide at the Abu Dhabi National Exhibition Centre (ADNEC) from 15-17 February 2016.

VIV MEA far exceeded expectations in its first edition as the new regional trade fair from VIV worldwide to serve the poultry, dairy and aquaculture industries from the Middle East and Africa to Turkey, Iran and the countries of South-Central Asia. The inaugural VIV MEA recorded an audited total of 6,336 visits by people from 109 countries to meet exhibitors from more than 279 companies.

Vetline's booth in the Indian Pavillion was very well received by all the visitors. Mr S.S. Bhatia, Executive Director, Mr. J.S. Uppal, General Manager-Marketing, along with the members of Team Vetline were present at the Show. A considerable number of existing and potential partners and customers visited the Vetline booth and had positive and fruitful interactions with the team.

"We have received very positive response from visitors, customers and partners" states Mr S.S. Bhatia and adds: "We have recently started business in Egypt and Saudi Arabia and have a strong vision to expand the export business. Participation in VIV MEA will definitely help us to increase business network in Middle East and Africa."

ABOUT VETLINE

Vetline is an accredited provider of innovative and high quality animal health care products and feed supplements. A Division of Simfa Labs Pvt. Ltd., Vetline is a professionally managed organization headquartered in Indore, Madhya Pradesh, India.

At Vetline, we understand the requirements of animal production and feed industries. Our expertise lies in identifying new opportunities, creating sustainable solutions, delivering benefits and continuously striving to improve the economics of livestock farming.

FACILITIES

VETLINE manufactures world-class animal health products through its state-of-the-art manufacturing plant.

The facility meets the international standards and is accredited with ISO 9001:2008 and other quality certifications.

Our upcoming production facility in Pithampur Industrial Area in Madhya Pradesh will see our production capacity increase manifold. The new 40000 sq. ft. facility will be equipped with all essential certifications like FAMI-QS, GMP and ISO.

PRODUCTS AND SERVICES

Vetline offers its valued customers a range of innovative and high quality animal health care products and feed supplements. We offer premium Toxin binders, Acidifiers, Emulsifiers, Water sanitizers, Antioxidant, Enzymes, Anticoccidials, Antibiotics, Organic trace minerals and Nutritional supplements, etc.

An innovative and well-research product BYTOX BHK, a next generation detoxifier and performance enhancer with action against Hepatotoxicity , Nephrotoxicity , Hematopoetic toxicity and Immunosuppression has already made its mark and showing benefits in the domestic and international poultry markets as a solution to the burning issue of toxicity.

MARKET PRESENCE AND EXPANSION PLAN

Vetline, currently has a strong presence in domestic markets across the country. Company has major expansion plans for 2016-17 to mark its presence in all the untapped poultry zones of India. Internationally, Vetline has a strong vision to expand the export business in the global markets of South East Asia, Middle East, Africa and SAARC countries. By 2025 Vetline aims to mark its presence in 100 countries globally.

We gladly share the best moments during our VIV MEA 2016 participation, a world class exhibition. In accordance with our company's international development plans, we strengthened our presence in countries where our products are being commercialized and moreover, creating new business opportunities like Saudi Arabia , Egypt, Bangla Desh ,Nepal ,UAE, Sudan, Nigeria, Phillipines, SriLanka, Pakistan, Jordan, Turkey etc…

We are proud to share our achievements with you…..

PRESS RELEASE

4 tips to improve eggshell resistance in aging layers

Eggshell resistance is naturally reduced as layers age, but there are means to alleviate the impact of metabolic fatigue through nutritional intervention.

Aging hens produce larger, albeit more fragile, eggs. Cracked eggs among older hens can exceed 20 percent, and these eggs are a negative mark for the egg industry for obvious reasons.

1) Calcium absorption

The main reason why older layers produce more cracked eggs has to do with egg size. As they deposit a ! xed amount of calcium per egg (2 grams), and calcium is the main element that provides strength to the shell, it is expected for a larger egg to have a thinner shell. With age, calcium digestibility and metabolism are impaired, while adding excessive amounts of dietary calcium only makes things worse. To this end, enhancing calcium digestibility and absorption appears to be a viable alternative. Thus, adding a more digestible source or form of calcium is recommended for diets during the last phase of egg production . In addition, adding organic acids and extra vitamin D have been shown to further improve the calcium balance and consequently egg shell quality.

Egg size plays a signifi cant role in eggshell quality, especially among older layers.

2) Phosphorus and phytase

Phosphorus is the second most in" uential mineral regarding eggshell quality. Here, the effect of this mineral can be antagonistic to that of calcium, as too much dietary phosphorus reduces intestinal calcium absorption. Thus, most layer diets tend to have low levels of phosphorus, but this can cause its own problems: it has been reported that when phytase is part of the phosphorus equation, then the already marginal dietary phosphorus levels can become limiting if phytase ef! cacy is impaired. How this might relate to older hens is still unknown.

3) Vitamin D and metabolites

Vitamin D is part of the calciumphosphorus homeostasis within the organism. Thus, high levels of dietary vitamin D can positively in" uence eggshell quality. Nevertheless, there is a natural bottleneck in vitamin D metabolism, which can be bypassed by using an active metabolite of vitamin D, instead of or in addition to the usual form. As this bottleneck becomes even more limiting in aging hens, better results are expected when using an active metabolite - but this has not been unequivocally con! rmed.

4) Microelements and organic forms

In addition to calcium, several microminerals in" uence eggshell quality. These include zinc, manganese and coppers, which all act as cofactors of enzymes involved in the mineralization process during eggshell formation. Several studies have indicated that increasing dietary concentrations of these microelements increases eggshell resistance, but only in layer hens. However, adding high levels of such nutrients may be restricted by legislation, as is the case in the European Union. To this end, using organic forms of zinc, manganese and copper appear to be an alternative way to increase absorption of these minerals, as organic forms appear to be more digestible than

inorganic forms. It's worth mentioning that not all organic forms perform the same, so picking the right one for the right purpose is critical. In addition, it appears that a mix of organic and inorganic forms might be better compared to an all-organic supply of these microminerals. In closing, we must acknowledge that lower eggshell quality is a fact associated with age and metabolic fatigue caused by high productivity in commercial layer genetic material. Nutrition can alleviate but not cure or prevent this problem. The extent of reducing cracked egg numbers depends on the nutritional strategies employed and the exact form of ingredients used. It is best to ! rst do all that can be done with calcium absorption before employing other nutritional measures. Nevertheless, a spike in the number of cracked eggs requires a thorough investigation of the whole nutrition program and perhaps some drastic changes.

- Source : Srinivasa Hatcharies

andrés pintaluba, s.a.

Andrés Pintaluba SA(APSA)
www.pintaluba.com
SPAIN

NRIGHT
Enriching Nutrition Solutions

Nright Nutrition Pvt. Ltd.
www.nright.co.in
INDIA

RIGHT PRODUCTS | RIGHT QUALITY | RIGHT INFORMATION | RIGHT PRICE

DELIVERED AT THE RIGHT TIME

- APSAMIX TYLOSIN 10%
- APSAMIX TIAMULIN 10%
- APSA AMINOVIT
- APSA VIGORPOL
- APSA B COMPLEX+K3+CHOLINE

CERTIFIED IQNet MANAGEMENT SYSTEM

GOOD MANUFACTURING PRACTICES GMP CERTIFIED Andrés Pintaluba SA (APSA)

FAMIQS
European Feed Additives and PreMixtures Quality System

Nright Nutrition Pvt. Ltd.
503, Arcadia, Hiranandani Estate, patlipada, Ghodbunder Road, Thane (W)- 400607
Phone: +91 22 4100 8584 | email id: customerservice@nright.co.in

Are E-Coli, Molds, Yeasts, Enterobacteria eating into your Profits?

Selko
Solid Solutions

Selko®-pH

- Maintains the pH & prevents survival & growth of E- Coli & Salmonella. Is Very Effective against Molds, Yeasts and Enterobacteria.
- Keeps Your water tank and lines clean.
- Maintains highest standards of water hygiene which stimulates chickens own enzyme production and better FCR growth rate.
- Not only a acidifier and a sanitizer, but profit enhancer.
- Use a programme to produce chicken and eggs - antibiotic free.

Prevent Survival and Growth of E-Coli, Salmonella, Molds, Yeasts and Enterobacteria in Drinking Water

www.selko.com

For any further information please contact

Selvan Kannan
Country Manager

Trouw Nutrition
INTERNATIONAL

Trouw Nutrition Hifeed BV
301, Siva Sai Apartments, Road No. 9, West Marredpally, Secunderabad 500 026.
Andhra Pradesh, India. Tel: +91 40 27703846, Fax: +91 40 27703847.
Mobile: +91 98480 46244. **selvan.kannan@trouwnutrition.com**

Reducing feed costs - a global task for poultry producers

Producers of poultry meat were glad about the genetic developments during the last few years. More and more records were achieved: Higher growth rates along with shorter growing periods and reduced feed conversions. This seemed to be the formula for profitable poultry meat production! However, achievement of these goals requires an ever increasing density of dietary nutrients, particularly of protein and digestible amino acids. Unfortunately, steadily increasing prices for raw materials, predominantly those of protein sources and amino acids, stand against this trend. Thus, the "cent business" of poultry meat production has become a balancing act between the birds' zoo-technical potential and feed cost, which amounts to 55 to 60% of the total production cost, depending on the cost of raw materials. In order to balance the cost of feeding with the achievable prices for live weight, different concepts, including reductions in ME MJ/kg and increases in digestible amino acids or blending of diets with wheat, were implemented. Another option is the use of feed additives which encourages the birds' endogenous enzyme secretion, thus resulting in increased protein and amino acid digestibility. The advantage of using a feed additive is that its efficacy is equally high in diets with higher or lower nutrient densities.

In previous studies, especially under practical conditions, it was shown that the phytogenic digestibility enhancer Digestarom® Poultry had a positive impact on growth rate, feed conversion, medication cost and mortality. Experiments carried out at the Free University of Berlin measuring ileal digestibility coefficients in monogastric animals indicate a significant improvement in amio acid digestibility. This was the reason to investigate, in cooperation with the Institute of Animal Nutrition in FU Berlin the potential benefit of Digestarom® Poultry in broilers fed optimized rations.

Obtaining high levels of productivity through improved feed conversion

The trial was carried out as an efficiency test using male Cobb broilers. Parameters under investigation included live weight, feed consumption and feed conversion ratio (kg feed per kg gain, FCR) from 1 to 42 days of age. The experiment included 20 birds per pen and 6 pens per treatment. In contrast to the recommendations of the breeding company, a three phase-feeding program was applied. Birds were fed starter (week 1 and 2), grower (week 3 and 4) and finisher (week 5 and 6) diets. The diets met the requirements of the Society of Nutrition Physiology (GFE, 1999) as well as those provided by the breeding company (Table 1). The phytogenic feed additive was included at a dosage of 150 g/t of complete feed.

Table 1: Principle dietary components and calculated ingredients

Principle components	Unit	Starter	Grower	Finisher
Soy bean				
meal (48%)	%	32,58	26,72	24,30
Corn	%	30,99	30,99	30,99
Wheat	%	25,79	30,16	32,30
Soy oil	%	6,05	7,45	7,97
Ingredients (calculated)				
ME_N	ME/kg	12.65	13.12	13.34
Crude protein	g/kg	222.10	200.00	190.00
Lysine	g/kg	12.90	12.00	11.10
Methionine	g/kg	5.90	6.00	5.70
Methionine /Cystine	g/kg	9.70	9.50	9.00
Crude fiber	g/kg	24.30	23.50	23.30
Ether extract	g/kg	82.70	96.60	101.80

There were no incidents during the entire trial. In total three animals died, one in the control, and two in the test group. Thus, mortality (1.25%) was significantly below the commercial average of 4.5%. Live weights achieved at 35 and 42 days of age tended to be lower (100 g) compared to the breed standard, which however may be attributed to the three phase-feeding program. In the test group, live weights were 35 or 27 g higher on day 35 and 42, respectively. Due to the diet and optimal conditions in the experimental unit, FCR was significantly below the breed standard. Cobb indicates an FCR of 1:1.596 for day 35 and 1:1.70 for day 42. In the trial, birds in the control group achieved an FCR of 1:1.451 and 1:1.506 on day 35 or 42, respectively! This is 11.6 or 19.4 points less in comparison with the breed standard (Table 2). Despite this high level of efficiency, FCR was still 2.6 or 3.4 points lower in birds fed the phytogenic feed additive.

In energetic terms, 0.357 or 0.464 MJ ME/kg live weight were spared on day 35 and 42, respectively(Table 2). Taking into account the additional cost for the additive, the additional margin over feed cost amounts to 2.4 Eurocents/bird.

Table 2: Zoo-technical results and energetic calculation

	Control day 35	Digestarom® day 35	Control day 42	Digestarom® day 42
Final live weight (g)	1919	1954	2704	2727
FCR 1:	1.451	1.423	1.506	1.472
EEF	385	398	423	433
MJ/ME/kg live weight	19.044	18.687	19.887	19.423
Difference vs. Control (MJ/ME/kg live weight)	0	0.357	0	0.464

*EEF = European efficiency factor

Another experiment at the experimental unit in Hyderabad, India, indicates a similar result. In this trial, a reduction in dietary ME and protein concentrations was implemented (Figure 1). During the last three days of the experiment, excreta were sampled and apparent digestibilities of energy and protein were determined. An increase in digestibility in birds fed Digestarom® Poultry was confirmed in this trial.

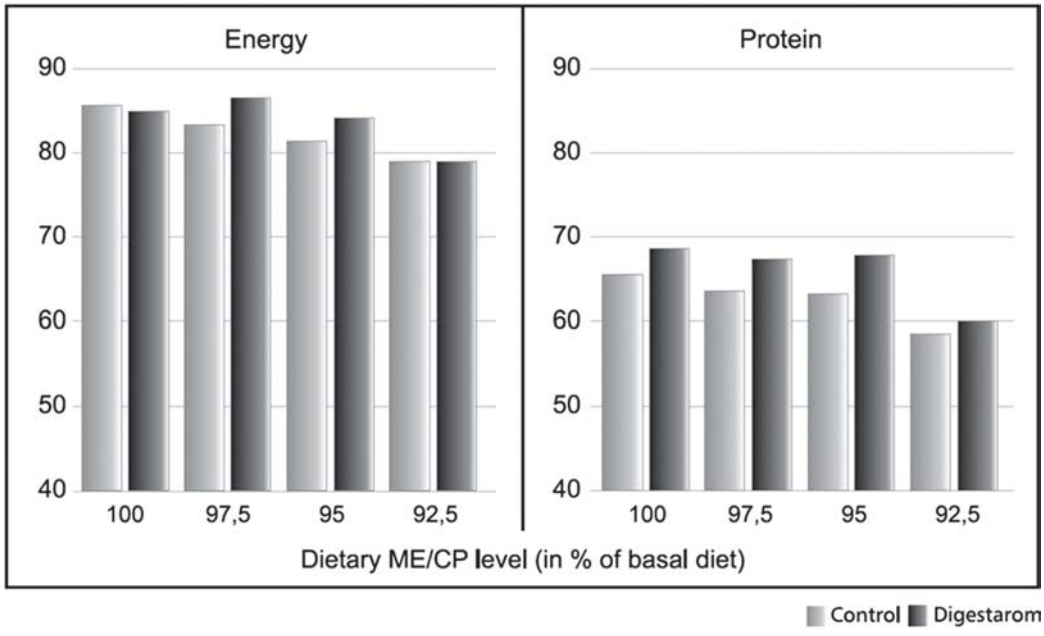


Figure 1. Digestibility of energy and protein in broilers fed different dietary ME/crude protein levels

Proper digestion - healthy animals

Another aspect of a proper digestion of the diet is related to animal health. This relationship was focus of an experiment carried out at Schothorst Feed Research (the Netherlands). The aim of this study was to provoke a more moist litter by feeding a "stress diet", and to investi-gate the influence of Digestarom® supplementation on litter score and foot pad lesions. As-hatched Ross 308 broilers were fed for 31 days. Lesion score, determined on day 31, ranged from 1 (no lesions) to 4 (severe lesions with necrosis).

The improvement in lesion score in the test group is due to a decrease in the number of se-vere lesions in comparison with the Control group (Table 3). In the test group, there were 15.5 or 8.5% less animals with lesion scores of 4 and 3, respectively. This is attributed to a dryer litter and lower ammonia levels in the test group.

Table 3: Zoo-technical results and foot pad lesion score (day 31)

	Control	Digestarom®	Difference	P-value
Final live weight (g)	1582a	1616b	+34	0.01
FCR 1:	1.624b	1.584a	-0.04	<0.001
Mortality(%)	2.2	2.1	-0.1	
EEF*	300	314	+14	
Lesion score	3.49b	3.33a	-0.16	0.04

[a,b] Significant difference between groups

*EEF = European efficiency factor

The improvement in zoo-technical parameters is reflected in a higher EEF (+14 points). Based on current prices, this represents a return on investment of approximately 1:5.5.

Conclusion:

Despite increasing per capita consumption of poultry meat from 9 to 11 kg in the last three years, poultry meat production is and remains to be a "cent business" undergoing periodic up- and downturns, while prices for protein sources have steadily been increasing. In order to keep poultry meat production profitable, genetics were further developed and nutritionists implemented appropriate feeding strategies. Using the digestive enhancer Digestarom® Poultry helps to further improve feed conversion, making its use reasonable across different genetics and feeding programs.

KEMIN INSPIRED MOLECULAR SOLUTIONS™

KEMIN SHARES INSIGHT WITH POULTRY FRATERNITY ON *LIPID NUTRITION AND IMPROVING NUTRITIONAL EFFICANCY - THE WAY FORWARD*

MR. RIAAN VAN DYK, VP GLOBAL MARKETING ADDRESSING CUSTOMERS

CHENNAI,INDIA-March 2016-Kemin, a global leader in developing ingredients for animal nutrition and health,shares its expertise with stakeholders and customers through a series of programs called Kemin Kontact. Recently, the company invited Prof. Ravi Ravindran,Monogastric Research Centre, Institute of Veterinary, Animal and Biomedical Sciences, Massey Universitytospeak on various unique needs and challenges faced in global Poultry Industries. Kemin India organized Kemin KnowlEDGE day followed by KeminKontactin 4 major poultry hubsin Indiaviz Bengaluru, Pune, Coimbatore and Hyderabadwith the theme ***"Performance beyond FCR- The way forward"***

In his presentation, Prof Ravi Ravindran shared following insights -

Improving the nutritional efficiency of various raw materials as well as bird efficiency is the way forward to get the maximum genetic potential. He had briefed on different types of fats and oils in the poultry diets and its economic significance. He added that the benefits of fats in the diet formulation are just beyond energy. Variation in the nutritional value of oils happened due to various factors like the fat source, fatty acid profile, free fatty acids, fat quality, fat color, fat inclusion levels and other nutrients like Ca, fiber,viscous raw materials and finally the age of the birds.

PROF RAVI RAVINDRAN PRESENTING AT KEMIN KONTACT

He also mentioned that his research work on the impact of Coccidiosis, NE, and other gut infections will significantly reduce the fat digestibility by 90% whereas other nutrients by 20 to 30%. This clearly shows the importance of keeping good gut health in getting maximum utilization of fat/oil and other nutrients.

He strongly reccomended a tool like bio surfactants, which can help to get most out of the fats and oils in all 3 stages of fat/oil digestion and absorption namely

- Emulsification,
- Hydrolysis &
- Absorption

Based on Prof Ravindran's research experience, the Lysophospholipid product of Kemin - LysoforteTM could improve the FCR by 5 to 6 points by improving the digestibility and absorption of fat/oils.

MR. SAMRAJ JEYCHANDRAN ADDRESSING THE AUDIENCE

He brieflydescribed the need for different types of formulation approaches, according to the local market demand and need.

Routine feed evaluation, aminoacid profiling, gut health, controlling safety margins in the formulation, Nutrient utilization, and management will play a key role in improving the efficiency of feed and bird.

Prof.Ravindran had added that addition of multiple enzymes delivers beyond energy, especially improving the Gut health by altering the Viscosity, gut integrity, litter quality and "Nitrogen Retention and Nutrient Absorption.

Followed by Prof. Ravidran'spresentation, Dr. S Chandrasekar - Product Manager of Kemin Industries South Asia commented on **"Recent Research Updates from Kemin"**, especially on **"Lipid Nutrition"** and feed ingredient digestibility. According to the research finding a particular proportion of Lysophospholipids (LysoforteTM) only can improve all 3 stages of fat/oil digestion and get maximum energy from the fats and oils. He shared the new insight on theimpact of saturated fat not only on fat absorption but also in Protein digestion.

PRESS RELEASE

Dr. Chandrasekar later updated the audience with different emulsifiers available in the market and its role, especially usage of Lecithin and Synthetic emulsifiers. The Lysophospholipids are ~20 times more efficient than normal Lecithin and Synthetic emulsifiers will act only at "Emulsification" process but leads to negative performance in Hydrolysis due to "Steric Hindrance" (Dr. Matias - Ph.D., research findings).

He added the new findings on feed ingredient digestibility improvement by Kemin's patented concept **of "Xylanase Potentiating Factor" (XPF), Slow Release Amylase (SRA)** and **Multi Proteases**. The new NSP enzyme - KemZYME XPF - will further improve the energy digestion by 28% more compared to normal NSP enzymes.

The patented Multi Protease concept developed by Kemin is the unique to the world and it further improves the Amino acid digestibility by "2 times" compared to single alkaline Protease. Due to overcome the practical difficulties in theusage of multiple products, Kemin has come up with the brand new concept **"NutriKEM XL Pro"** - a comprehensive solution for improving the nutritional efficiency of the bird.

Mr. Riaan Van Dyk, Vice President, Global Marketing and Strategies of Kemin Industries, had presented the "Latest Happenings" at Kemin. He commented that the future of the Poultry industry will have theenormous opportunity as well as challenges. The increase in population, income growth and change in food consumption and expectation from the consumers will give hope for us to produce most efficient and quality food. He also pointed Kemin's association with various universities and institutions in India and throughout the globe to transfer the research knowledge into improving the productivity with thelesser cost of production. He also mentioned that Kemin is committed to providing value added services as per customer need and research in the new areas such as "Lipid Evaluation Test" to evaluate the quality of fat and oils and Neumentics (from human health) which improves the working memory of people.

Mr. G.S Ramesh, President Kemin Industries India interacted with the customers and nutrinonalist. Mr. Samraj Jeychandran, Sr. Vice President Kemin Industries India efficiently anchored the event and answered all their queries.

Kemin - Inspired Molecular Solutions™

Kemin (www.kemin.com) provides "inspired molecular solutions" specifically developed to provide nutrition and health benefits for humans and animals. Committed to feed and food safety, Kemin maintains top-of-the-line manufacturing facilities were approximately 500 Specialty ingredients are made for the global feed and food industries as well as the health, nutrition and beauty markets. A privately held, family-owned and operated company, Kemin has nearly 2,000 employees and operates in more than 90 countries with manufacturing facilities in Belgium, Brazil, China, India, Italy, Singapore, South Africa and the United States.

For media inquiries, please contact:
Mr. R Kannan, +919445147567,
kannan.r@kemin.com
Ms. Kavyanjali Yadav, 7200508971,
kavyanjali.yadav@kemin.com

PRESS RELEASE

KEMIN INSPIRED MOLECULAR SOLUTIONS™

Scientific study demonstrates slow release butyrate is effective replacement for antibiotic growth promoter

Encapsulated ButiPEARL™ effective option for growth promoter in broilers

HERENTALS, Belgium - February 15, 2016 - Recently, a novel and timely study evaluating the effect of a slow release calcium butyrate versus avilamycin was published in Poultry Science, an international journal publishing research notes, symposium papers and studies of basic science as applied to poultry. The timing of this study, which provides an effective alternative to antibiotic growth promoters, is critically important as the global trend and pressure to move away from antibiotics continues.

The alternative, butyric acid, is a short chain fatty acid which is known to be involved in mucosal immune response and to have an anti-inflammatory effect in animals. Although butyric acid is a small molecule, it can have diverse modes of action, such as increase villi height and crypt depth, leading to increases in absorptive surface of the small intestine and resulting in better nutrient utilization.

As butyrates are so quickly absorbed and metabolized, an encapsulation technology is needed in order to secure the slow release of the butyrate in the small intestine. ButiPEARL™ is a slow release calcium butyrate which has been tested in a C14 labelled study to have a targeted release of butyric acid in the small intestine1.

In a recent study (Table 1), the efficacy of ButiPEARL versus avilamycin was studied. Both ButiPEARL (300 g/ton) and avilamycin (6 mg/kg active substance) treated groups were able to demonstrate a statistically significant difference versus the control group on body weight gain (BWG) and feed conversion ratio (FCR), which demonstrated their effect to improve performance.

Table 1. Animal performance data of ButiPEARL versus avilamycin

Parameters	Control	Control + ButiPEARL	Control +avilamycin
BWG (g)	2,123	2,323*	2,356*
FCR (g:g)	1.59	1.49*	1.50*

* significantly different from Control with $P < 0.05$

Between the ButiPEARL and the avilamycin group, no statistically significant difference was observed. Birds in these two treatment groups had the thickest mucosa, and both ButiPEARL and avilamycin increased digestibility of several amino acids (e.g. threonine, serine and proline) at statistically significant levels.

This study demonstrates that ButiPEARL can improve digestion and absorption, and consequently bird performance results. Reference: Poultry Science 00:1-9 (2016), Table 1.

1. Smith J. et al. In Vitro Dissolution and In Vivo Absorption of Calcium [1-14C] Butyrate in Free or Protected forms.Journal of Agricultural Food Chemistry 2012.

About Kemin - Inspired Molecular Solutions™

Kemin (www.kemin.com) provides "inspired molecular solutions" specifically developed to provide nutrition and health benefits for humans and animals. Committed to feed and food safety, Kemin maintains top-of-the-line manufacturing facilities where approximately 500 specialty ingredients are made for the global feed and food industries as well as the health, nutrition and beauty markets. A privately held, family-owned and operated company, Kemin has nearly 2,000 employees and operates in more than 90 countries with manufacturing facilities in Belgium, Brazil, China, India, Italy, Singapore, South Africa and the United States.

For media inquiries, please contact: Tin Mariën, +32 14 28 62 60, tin.marien@kemin.com

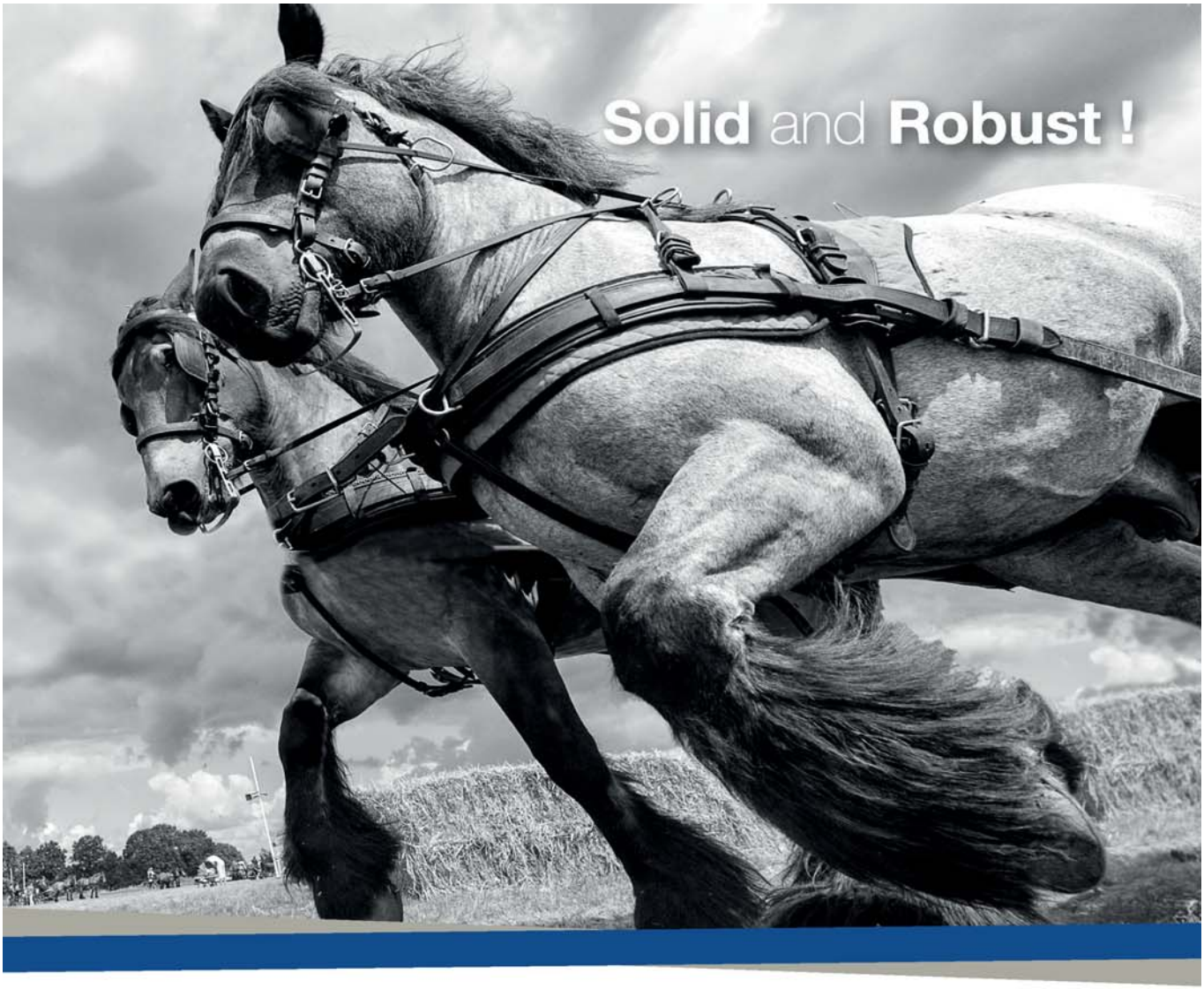
BROILER LIFTING RATES FOR THE MONTH OF FEBRUARY 2016

Place	Hyderabad	Kurnool	Karimnagar	Vizag	Godavari	Vijayawada	Guntur	Ongole	Chittor	Nellore	Namakkal
1	75	75	75	71	75	75	75	77	71	71	67
2	72	72	72	68	72	72	72	74	67	67	64
3	72	72	72	68	72	72	72	74	67	67	64
4	69	69	69	66	69	69	69	71	67	67	66
5	70	70	70	69	72	73	73	75	69	69	66
6	70	70	70	69	72	73	73	75	69	69	66
7	70	70	70	69	72	73	73	75	69	69	66
8	70	70	70	69	72	73	73	75	69	69	66
9	70	70	70	69	72	73	73	75	66	66	62
10	70	70	70	69	72	73	73	75	69	69	64
11	71	71	73	66	78	79	80	81	67	67	64
12	71	71	73	66	78	79	80	81	67	67	64
13	73	73	74	69	72	73	74	75	67	67	62
14	77	77	77	73	76	77	78	79	68	68	66
15	77	77	77	73	76	77	78	79	68	68	66
16	80	80	80	75	78	79	80	81	70	70	66
17	80	80	80	75	78	79	80	81	70	70	71
18	82	82	83	76	80	81	82	83	75	75	71
19	82	82	83	76	80	81	82	83	75	75	71
20	82	82	83	76	80	81	82	83	71	71	71
21	82	82	83	76	80	81	82	83	71		70
22	82	82	83	76	80	81	82	83	71		70
23	76	74	76	71	74	75	76	77	75		66
24	72	71	72	67	70	71	72	73	72		64
25	72	71	72	67	70	71	72	73	72		64
26	72	71	72	67	70	71	72	73	72		64
27	73	72	74	68	71	72	73	74	66		64
28	75	74	76	70	73	74	75	76	69		65
29	75	74	76	70	73	74	75	76	69		65

NATIONAL EGG CO-ORDINATION COMMITTEE

DAILY/MONTHLY EGG PRICES DECLARED BY NECC AND PREVAILING PRICES AT VARIOUS PRODUCTION CENTRES (PC) AND CONSUMPTION CENTRE (CC) FEBRUARY 2016

Name Of Zone \ Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	Average
													NECC PRICES																	
Ahmedabad	415	405	405	405	405	405	395	395	395	395	395	395	395	395	395	395	370	360	360	360	360	360	360	360	340	340	340	330	330	377.93
Ajmer	380	370	370	367	350	350	350	350	352	354	354	354	348	342	332	332	332	327	322	317	317	317	310	307	307	305	300	300	289	334.65
Banglore (CC)	410	390	380	380	380	380	370	370	372	372	375	375	375	375	375	370	370	360	360	360	360	360	360	360	350	350	335	335	335	367.03
Chennai (CC)	425	410	410	410	390	390	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	365	365	347	347	385.31
Chittoor	418	403	403	403	383	383	378	378	378	378	378	378	378	378	378	378	378	378	378	378	378	378	378	378	378	358	358	340	340	378.31
Delhi (CC)	405	395	395	390	380	380	380	380	370	370	370	370	370	370	370	355	355	350	350	340	340	340	340	340	340	325	320	320	315	359.48
E.Godavari	390	383	378	378	378	378	378	365	365	365	365	360	360	360	360	347	340	340	330	330	330	320	320	320	320	320	310	310	300	348.27
Hyderabad	385	375	375	375	375	375	365	365	365	365	365	365	365	365	365	355	345	335	335	335	335	335	335	335	325	320	310	305	305	350.17
Miraj	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mumbai (CC)	425	415	415	415	415	415	405	405	405	405	405	405	405	405	405	395	385	375	375	375	375	375	375	375	365	360	350	340	340	389.82
Mysore	405	395	395	380	380	375	375	375	375	375	377	377	377	377	377	377	377	367	367	367	367	367	367	367	357	357	343	343	343	371.75
Nagapur	390	375	370	367	365	362	355	353	352	356	360	363	355	352	350	345	340	337	330	323	323	323	323	322	320	318	315	302	300	342.96
Namakkal	400	400	400	380	380	370	370	370	370	370	370	370	372	372	372	372	372	372	372	372	372	372	372	372	352	352	334	334	320	369.17
Pune	430	415	415	415	400	400	395	395	395	395	395	395	395	395	395	385	375	365	365	365	365	365	365	365	355	350	340	335	335	381.37
Punjab	386	373	373	373	363	355	350	350	350	350	350	350	350	343	343	338	338	331	325	319	319	319	308	308	308	305	300	293	293	336.65
Vijayawada	390	383	378	378	378	378	378	365	365	365	365	360	360	360	360	347	340	340	330	330	330	320	320	320	320	320	310	310	300	348.27
Vizag	405	398	393	393	393	393	393	380	380	385	385	375	375	375	375	360	353	353	340	340	340	330	330	330	330	330	320	320	310	361.51
W.Godavari	390	383	378	378	378	378	378	365	365	365	365	360	360	360	360	347	340	340	330	330	330	320	320	320	320	320	310	310	300	348.27
Warangal	388	378	378	378	378	378	368	368	368	368	368	368	368	368	368	358	348	338	338	338	338	338	338	338	328	323	313	308	308	353.17
													PREVAILING PRICES																	
Allahabad (CC)	414	410	405	395	395	381	376	376	371	371	371	371	367	362	357	357	357	352	352	348	343	343	343	338	338	333	333	333	333	362.93
Barwala	388	370	370	363	363	356	356	356	356	356	356	356	356	350	343	335	328	325	325	320	319	319	317	312	312	305	305	300	290	338.17
Bhopal	405	395	385	385	385	375	375	375	375	375	375	375	375	365	365	360	355	355	350	345	343	340	343	343	338	331	328	325	320	360.72
Hospet	380	360	350	350	350	350	338	338	340	340	340	340	340	340	340	338	338	325	325	325	325	325	325	325	315	315	300	300	300	333.68
Indore	400	390	390	385	380	380	375	375	375	375	375	370	370	370	370	375	370	360	358	358	345	345	345	345	340	340	320	320	320	362.79
Jabalpur	403	393	380	380	370	365	365	367	368	370	370	371	367	365	362	357	350	345	335	332	333	333	335	335	329	322	318	310	318	353.37
Kanpur (CC)	424	420	419	405	395	395	395	395	390	390	395	395	395	386	381	371	371	357	357	352	352	352	352	352	352	352	343	343	343	376.86
Kolkata (CC)	427	422	412	412	412	412	412	412	412	399	399	396	396	392	390	378	378	371	365	363	363	357	357	348	348	346	346	342	336	382.86
Luknow (CC)	457	457	450	450	450	403	420	420	410	410	400	400	400	400	393	393	390	390	390	380	380	380	380	370	370	370	360	353	360	399.51
Raipur	418	410	385	385	385	385	375	375	375	375	377	377	377	370	363	355	350	350	340	340	335	330	330	330	325	325	320	320	315	358.51
Varanasi (CC)	440	435	423	413	410	403	403	397	397	400	400	400	400	393	387	387	387	380	377	377	373	367	363	363	360	357	353	343	353	387.62



Hostazym® X
The preferred NSP enzyme

The preferred NSP enzyme

As nutritionist or feed producer you expect that your NSP enzyme works under all circumstances, independent of the type of raw material you use. Hostazym® X is the NSP enzyme known for its robustness, inherited from its production method: surface fermentation on wheat bran. Because the circumstances during surface fermentation are harsh, a very powerful, stable and robust natural enzyme-mix is produced with multiple important activities inside. Hostazym® X has a high efcacy, it improves the nutritional value of raw materials in both poultry and swine feeds. Users of Hostazym® X experience this every day again and conrm Hostazym ® X is the most cost effective NSP enzyme available on the market today. Your Huvepharma representative will make sure you get the best offer possible for Hostazym® X which makes Hostazym® X your preferred NSP enzyme.

HUVEPHARMA®
We add performance to your business

http://www.huvepharma.com

HUVEPHARMA NV • UITBREIDINGSTRAAT 80 • 2600 ANTWERP • BELGIUM • P +32 3 288 1849 • CUSTOMERSERVICE@HUVEPHARMA.COM
HUVEPHARMA SEA (PUNE) PVT. LTD. • 104, 1ST FLOOR, 'GREEN TERRACES' • LANE NO. 5, KOREGAON PARK • PUNE 411001, INDIA • P +91 20 2615 4193 • SALESINDIA@HUVEPHARMA.COM

E-Sel-POWER® PFS

(A Unique combination of Natural Vitamin E & Selenium Complex)

"...300mg of synthetic vitamin E equals to blood levels achieved by 100mg of natural vitamin E"

Kiyose C et al; American Journal of Clinical Nutrition. 1997; 65:785-789.

"....rate of excretion of synthetic vitamin E is three times faster than natural vitamin E"

Traber MG et al; FEBS Letters. 1998;437:145-148.

"....Organic Selenium Complex is more bioavailable and less toxic as compared to inorganic selenium"

Mutanen, M. Ann. Clin. Res. 1986;18:48-54

USAGE

- To provide optimum activity of Vitamin E & Selenium to improve health, growth and production performance.
- To optimize antioxidant defense of the body.
- To optimize immune competence and also to control infections.
- To improve fertility and hatchability in breeder birds.
- To overcome stress caused by environmental changes, vaccination, debeaking, transportation etc.

Comparative efficacy of E-Sel Power and synthetic vitamin E with inorganic selenium in commercial broilers

Parameters (42 days)	Synthetic Vitamin E & Selenium @ 250g/ton feed	E-Sel Power @ 100 g/ton feed
Live weight (g)	2158	2206 (+48)
Dressed weight (g)	1579	1632 (+53)
FCR	1.88	1.90 (+0.02)
IBD titre (ELISA; day 32)	312	653 (+341)
Cost of inclusion/ton of feed	Rs. 130.00	Rs. 32.00(-98.00)
Incom/live bird (Rs. 58.00/kg)	Rs. 125.16	Rs. 127.95 (+2.79)

INCLUSION RATE

E-Sel-POWER Powder
100 gm per ton of feed or as advised by the poultry consultant.

PRESENTATION

1, 5 & 25 Kg Pack
225 ml Bottle, 1 Ltr. Bottle 5 Ltr. Jerycan

WATER INCLUSION RATE (Per 1000 Birds)

Broilers	Layers	Quantity
0 -2 wks	0 - 8 wks	10 ml
3 -4 wks	9 -20 wks	20 ml
5th wk & onwards	21-72 wks	40 ml

To be given orally, mixed with drinking water, once daily.
Double quantity is recommended for breeders.

INDIAN HERBS SPECIALITIES Pvt. Ltd.
S.C.O. 233, 2nd Floor, Sector - 20, PANCHKULA - 134116, Ph. No. : (91) 9357247217
TeleFax No. : 0172 - 5011470, E-mail : ihspl@indianherbs.org Web: www.indianherbs.org

Quality Feed Supplements for Better Performance

AMINOCHEL
Amino Acid Chelated Trace Minerals

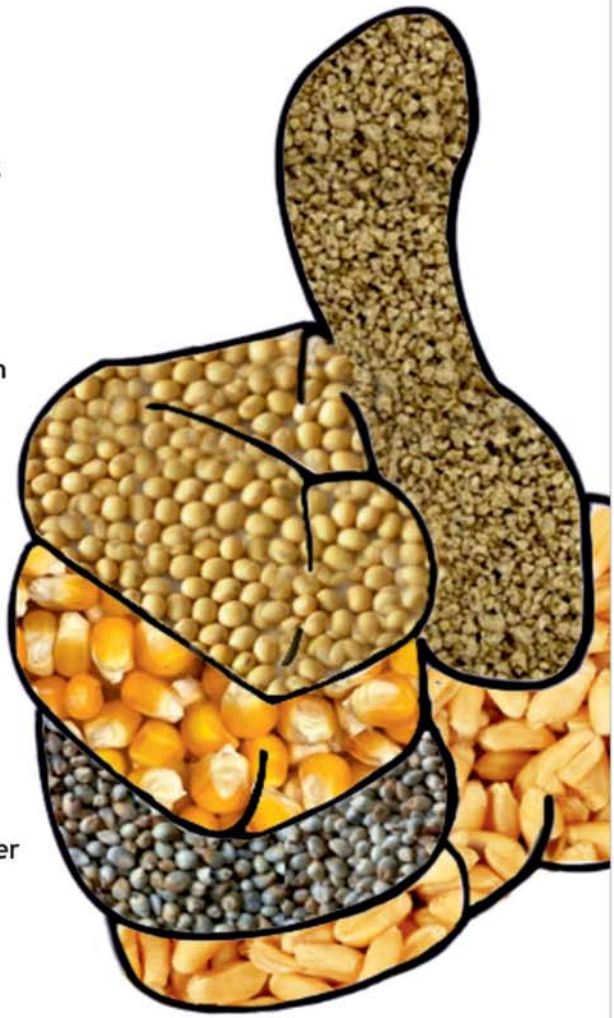
DETOXIZYME
Broad Spectrum Multi Mycotoxin Binding & Biotransformation

GUTPRO
Multispecies & Multistrain Probiotic - Healthy Gut Through Probiosis

LIPOSORB
4 in 1 Nutritional Emulsifier

MAXIGRAIN-ACIPRO
Enhances Protein Availability

SANIFEED
For Feed Hygiene



Polchem Hygiene Laboratories Pvt. Ltd.
6, Gandharva, 28, Erandwana, Near Mehendale Garage, Pune 411 004. India.
Tel.: +91 - 20 - 2543 9858, 2543 9874. Fax : +91 - 20 - 2543 9789
E-mail : sales@polchemgroup.com **Website :** www.polchemgroup.com

POLCHEM®
INNOVATIVE SOLUTIONS

Summer Stress Management through Nutritional Intervention

Heat Stress is a condition in which birds find difficulty in achieving the balance between body heat production and body heat loss. The normal body temperature of a bird varies between 40 and 42°C. The ideal environmental temperature for chickens is 18-24°C. If there is increase in environmental temperature, body temperature also raises. In order to maintain same body temperature of 40 - 42°C, bird will loss heat through different ways:Radiation, Convection, Conduction and Evaporation.

Since the bird's skin doesn't have sweat glands, heat loss mainly happens through evaporation by panting. In order to lose 1 ml of water, the bird uses 540 Calories of energy which results in significant drop in production and weight loss.

Physiological mechanism of stress regulation

Exposure of birds to stress is an inevitable event in poultry husbandry, when the threshold level of stress is crossed it results in distress to birds. Then the birds show stress syndromes, which are classified into three stages.

- Stage of alarm reaction (Neurogenic system).
- Stage of resistance or adaptation (Endocrine system).
- Stage of exhaustion.

1. Neurogenic (sympatho- adrenal) system (Short-term regulation of stress): This system consists of sympathetic (post ganglionic) nervous system and adrenal medullary tissue. It controls the rapid response to the animal i.e. fight or flight or alarm (emergency) reaction (Cannon, 1929). This reaction lasts only a short time. It is characterized by increased rates secretion of the catecholamine from the adrenal medulla. These catecholamines prepare the bird for "Fight or Flight" reaction and commanding a rapid release of glucose in blood, depletion of liver glycogen, increased peripheral vasomotor activity, altered ventilation rate and increased neural sensitivity (Selye, 1950; Siegel. 1980). Catecholamines also stimulate the activity of hepatic adenylcyclase, the enzyme required for the production of cAMP (Robinson and Sutherland, 1971). cAMP regulates the number of energy reaction (physiological processes) and directly increases the formation of antibody (Braun et al. 1971).

2. Endrocrine system (Long-term regulation of stress): Involvement of endocrine system in stress regulation is called the 'stage of resistance'. This system is comprised of hypothalamus-pituitary adrenal axis (HPA). It is characterized by adrenal cortical hypertrophy and increased synthesis and release of adrenal glucocorticoids, known as corticosterone in bird (Siegel, 1971, 1980). Activation of the HPA is a longer-term adjustment by the animal to the surrounding changes. Selye (1936) called it General Adaptation Syndrome (GAS).

The endocrine mechanism of stress regulation is started with the stimulation of hypothalamus and release of ACTH from anterior pituitary, which causes the increase of adrenal cortical steroid secretions. Continuous stimulation to adrenal cortex leads to chronically high levels of corticosteroid hormone. This hormone is responsible for the formation of glucose from body's reserve of carbohydrates, lipid and proteins. Corticosteroids contribute to many of the disease associated with long-term stress, such as, cardiovascular and gastronistestinal disease, hypercholesteraemla, metabolic rearrangements and antibody suppression. (Siegel, 1985).

Other hormones:

i) Glucagon: The ∝ a cells of the pancreas are the source of glucagon, are stimulated in alarm response in both mammals and birds (Freeman. 1980).

ii) Thyroid hormone: Hormone produced by thyroid glands are also involved in stress regulation (Klandorj et al. 1978).

3. Stage of exhaustion:

Finally, if the bird does not recover from the stressor and the availability of body reserves and hormones from the

adrenal gland are inadequate, a third or exhaustion phase leads to fatigue of the homeostatic mechanisms and death (Brake, 1985; Freeman,1987; Maxwell,1993).

Indicators of Stress in Poultry -

- The levels of ACTH and glucocorticoids are good indicators of stress response intensity. Corticosterone is the most common glucocorticosteroid in birds (Holmes and Phillips, 1976). This hormone influences the metabolic haemostasis. It ensures that the nutrient stores are allowed to furnish the energy the animal must have in order to adapt to the stressful stimulus. Corticosterone also acts antagonistic to insulin activity, reduces the glucose utilization by peripheral tissues and causes stress-induced hyperglycemia in birds (Healey and Romero, 2001). Corticoids also depress the immune system function, and reduce serum protein concentrations.
- During chronic stress exposure, poultry will eat less initially, and then increase their feed intake. (Siegel,1995). Since the energy reserves are channelled to adapt to the stressor and since the vital functions of the body including that of the brain, liver, heart, lungs, kidney, etc. cannot be compromised, the full genetic potential of the bird for growth and egg production is not expressed during stress period.

Negative Impact of Stress on Poultry -

- Release of corticosterone affects muscle protein synthesis since the carbon skeletons of the amino acids are used for energy. It has been shown that when exposed to chronic stress, the breast muscle of the broiler bird loses protein and it is the last muscle to rebuild protein to replenish breast mass (Teeter and Wiernusz, 1994).
- Exposure to stress also influences the immune response of poultry (Beard and Michell, 1987; Donker et al., 1990; Henken et al., 1982).
- During Stress period, the full genetic potential of the bird for growth and egg production is not expressed.
- Stress is reported to cause decline in muscle proteins and increased fat deposition in poultry (Nagra and Meyer, 1963; Bartov et al., 1980; Siegel and Van Kampen, 1984).
- Stress is also observed to increase the excretion of minerals such as calcium, copper, iron, zinc, manganese, sodium, potassium and iron in birds (El Husseiny and Creger).
- Several studies observed the negative effect of stress on the performance of poultry including carcass quality and health besides performance parameters (Siegel and Latimer, 1984; Carmen et al., 1991; Yahav et al., 1996; Temim et al., 2000; Har et al., 2000; Oskan et al., 2003).

Summer Stress Management:

Methods to alleviate the effect of heat stress focus on handling external and internal factors like cooling poultry houses and manipulating the diet.Nutritional modifications are done to address the altered metabolic requirements during times of stress. There is variation in the need of protein and energy during this period and also there is need of additional nutrients.

The major compounds which play a key role in stress management in poultry are Chromium&Ascorbic Acid.

Role of Ascorbic Acid:

Ascorbic Acid plays a major role in inhibiting the biosynthesis of corticosterone (Bain, 1996). The proposed hypothesis for this effect is by inhibition of the enzymes in the steroid biosynthetic pathway, such as 21-hydroxylase and 11 beta-hydroxylase.

Although the poultry are capable of synthesizing ascorbic acid, supplementation under conditions of stress has been shown to be of benefit to the bird as reported in various studies. Daghir (1995) found that the production of ascorbic acid is inadequate form optimum performance. Ascorbic acid supplementation to the diet and water during periods of stress is reported to cause reduced synthesis of corticosterone (Brake, 1988). Stressors in the environment have a direct influence on plasma and tissue levels of ascorbic acid.

Cifti et al (2005) investigated the effect of supplementation of ascorbic acid in laying hens exposed to heat stress. The authors observed significant reduction in mortality on supplementation of ascorbic acid and also an improvement in egg production and feed efficiency. The supplementation was also found to improve the egg yolk content. Blaha and Kreosana (1997) observed an increase in body weight of chicken by 18% when supplemented with ascorbic acid. Benefits of supplementation of ascorbic acid to poultry are more

pronounced under conditions of high ambient temperature.

Ascorbic acid supplementation in laying hens was found to reduce the serum concentration of malonaldehyde, a major indicator of oxidative stress (Sahin et al., 2002). Since ascorbic acid is also involved in the synthesis of phagocytes and neutrophils it plays a major role in the immune mechanism of poultry (Null, 2001). Reduced incidence of disease outbreak and reduction in mortality has been observed in broiler birds with the supplementation of ascorbic acid (Vathana et al., 2002). Ascorbic acid is observed to reduce iron form its ferric to ferrous form and thus improve its assimilation by the intestine. This in turn improves the resistance to infections (Cifti et al., 2005).

Role of Chromium -

Chromium was identified as an essential mineral in livestock animals only as late as in the 1990s.

The primary role of chromium in metabolism is in enhancing the glucose uptake by the cells (Davis and Vincent, 1997).Low-molecular-weight chromium-binding substance, chromodulin, is assumed to take part in the glucose metabolism. Chromodulin binds with chromic ions in response to an insulin-mediated chromic ion flux, and the metal-saturated oligopeptide binds to an insulin-stimulated insulin receptor, activating the receptor's tyrosine kinase activity. Thus, chromodulin appears to play a role in the auto- amplification mechanism in insulin signaling (Vincent, 2000a). Chromium deficiency is found to cause reduction in insulin sensitivity in the peripheral tissues as well as a decrease in growth rate (Lindeman, 1996).

Another aspect of chromium action that may explain its enhancement of insulin sensitivity is its effect on increasing membrane fluidity (Evans and Bowman, 1992). Moderate increase in plasma membrane fluidity has been documented to increase glucose transport. Plasma membrane cholesterol content was diminished in cells exposed to chromium and exogenous cholesterol replenishment was found to render the enhancement of insulin action by chromium ineffective (Chen et al., 2006).

Chromium also activates certain enzymes and stabilizes proteins and nucleic acids (Anderson, 1994). Chromium plays a major role in alleviating the negative effects of environmental stress (Sahin et al., 2001; Mowat, 1994; Lien et al., 1999). Chromium is found to influence the secretion of corticosteroids. Chromium excretion in urine is found to be enhanced by all stress-inducing factors, indicating enhanced mobilization during stress condition (Mowat, 1994). Chromium supplementation is also found to influence the humoral and cell-mediated immune response, although the fundamental mechanism of intercellular and intracellular action remains unknown. The immune function may be affected in association with insulin and/or cortisol activity since corticosteroids have a depressing effect on immune system. It is also assumed to be mediated by production and regulation of certain cytokines (Borgs and Mallard, 1998). As has been observed with ascorbic acid, chromium is also reported to positively influence the retention of minerals.

Supplemental dietary chromium is recommended by NRC (1997) for animals undergoing environmental stress. Even though chromium is not currently considered as an essential trace mineral for poultry, research data provide evidence that suggests a nutritional and physiological role for chromium as a micronutrient (Sands and Smith., 1999). The beneficial effects of chromium can be observed more efficiently under environmental, dietary, and hormonal stresses. Intake of 50-200 ppb of trivalent chromium is recommended for adult humans (NRC, 1989).

There are significant differences in the levels of response depending upon the source of chromium supplementation. Organic source of chromium is over ten times more bio available than inorganic sources. Chromium propionate (Kemin Industries Inc, USA) has been approved as an acceptable additive for swine feed by US Food and Drug Administration. This is based on the genotoxicity studies which proved it to be nontoxic (Anon., 2007). Studies in pigs have shown that chromium from chromium propionate when compared to that from chromium picolinate gives significant metabolic responses, thus demonstrating excellent and reliable bioavailability (Matthews et al., 1997).

A number of reports confirm decreased sensitivity to stress in chromium supplemented animals through a reduced concentration of cortisol in blood (Chang and Mowat, 1992; Moonsie-Shageer and Mowat, 1993; Pechova et al., 2002). Chromium supplementation has been observed to alleviate the detrimental effects of cold stress in laying hens reared under a low ambient temperature (Sahin and Sahin, 2002). Southern and Page (1994) recommended 100-200 ppb of chromium

as the optimum requirement for enhanced egg production in layers. The authors recorded an increase of 5.3% in egg production with chromium supplementation. Uyanik et al. (2002) observed improvement in the efficiency of feed utilization of laying hens with the supplementation of chromium. Chromium supplementation decreased blood cholesterol concentrations in Japanese quail under thermo neutral zone (Sahin et al., 2001a). A lowering trend in egg cholesterol levels were observed in hens when supplemented 100 or 200 ppb organic chromium (Southern and Page, 1994). Significant reduction in serum corticosterone levels were reported in laying Japanese quail supplemented with chromium (Sahin et al., 2002). Sahin et al. (2001) found that chromium supplementation increased serum insulin concentration and decreased corticosterone concentration in laying hens at low ambient temperature.

Chromium supplementation has been found to improve the body weight gain and feed efficiency in broilers under heat stress conditions (Sands and Smith, 1999). Toghyani et al. (2006) reported an increase in body weight gain and feed intake of broilers under heat stress condition when supplemented with chromium. The authors also observed an increase in carcass yield and decrease in abdominal fat contents. Significant reduction in breast and thigh muscle cholesterol levels and an increase in breast and thigh muscle protein levels is a highly desirable trait in broiler meat quality, which can be achieved with chromium supplementation. Anandhi et al. (2006) observed a significant reduction in breast and thigh muscle cholesterol levels and an increase in breast and thigh muscle protein levels in broilers supplemented with organic chromium. Similar observation was made by Sahin et al. (2003) in broiler birds under heat stress wherein the carcass yield was improved and abdominal fat content was reduced. The authors also noted that a decrease in weight gain and feed efficiency in broiler birds, reared under heat stress conditions, which was alleviated by dietary chromium supplementation. Kim et al. (1996) observed that chromium supplementation increases the weight gain and feed intake in broilers without affecting the feed conversion. Sahin et al. (2002a) reported an increase in feed intake, feed efficiency and body weight of broilers under heat stress with supplementation of chromium. The study also showed a decrease in the serum corticosterone and cholesterol levels after supplementation of chromium. Chromium supplementation has been observed to improve FCR by 6.2% (Zhang et al., 2002). Kim et al. (1995) reported increased HDL cholesterol, decreased total cholesterol and higher ratios of HDL: CHOL in chromium picolinate supplemented broilers.

Effect of Combination (CHROMflexTMC):

The combination of chromium and ascorbic acid is found to give significant improvement over individual ingredients on performance of poultry (Sahin et al., 2003). The synergy comes from the interaction in several ways. Glucose competitively inhibits ascorbic acid transport (Mann and Newton, 1975). By improving the activity of insulin, chromium indirectly potentiates transportation of ascorbic acid (Seaborn et al., 1994). Ascorbic acid itself is observed to support the secretion of insulin from pancreatic islets (Wells et al., 1995). Lee et al (2011) suggested the role of both chromium and ascorbic acid in improving the secretion and activity of insulin.

In laying hens, exposed to low (high) ambient temperatures, the supplementation of chromium and ascorbic acid was found to improve the retention of minerals such as iron, calcium, phosphorous and zinc (Sahin and Sahin, 2002). In the same study, the authors also observed reduction in nitrogen excretion, and have suggested the combination of chromium and ascorbic acid to be a protective stress management strategy. The reduction in loss of minerals was presumed to be due to the protective effect of chromium and ascorbic acid on pancreatic tissue against oxidative damage, thereby improving the secretion of digestive enzymes. Sahin et al. (2003) observed improved weight gain, feed intake and FCR and lower corticosterone, glucose, and malonaldehyde concentrations of broiler birds on supplementation of chromium and ascorbic acid combination.

References:

Beard and Michell, 1987; Donker et al., 1990; Henken et al., 1982

Klandorj et al. 1978

Nagra and Meyer, 1963; Bartov et al., 1980; Siegel and Van Kampen, 1984

Sahin et al., 2001; Mowat, 1994; Lien et al., 1999

Anderson, 1994

Daghir (1995)

Sahin et al. (2003)

Ventri Biologicals had conducted series of Technical Seminars on **"Progress in the Fight against Infectious coryza. Monitoring is Critical"** at Pune, Vijayawada, Hyderabad, Chandigarh, Namakkal, Coimbatore, Mysore, Bangalore, Davangere and Hospet along with Poultry Farmers and Technical Consultants from 27th to 5th February 2016.

The resource person for the Seminar was
Prof. Robert Bragg.

About Prof .Robert Bragg: Prof.Robert Bragg was head of Research in the Poultry Department of the Faculty of Veterinary Science of the University of Pretoria since 1992. He left UP in June 1998 to take up current position at Free State university Department of Biotechnology, South Africa. He has published widely on diseases of Poultry. He has published 34 articles in reviewed Journals as well as 9 published conference proceedings. He has also attended numerous conferences and has been an invited speaker at international conference.

Prof Robert Bragg and his research team from the Department are regarded as world leaders in their area of research. Current research areas focus is on infectious coryza in poultry, disease control in a post-antibiotic era and vaccine development. They are assisting vaccine producers in South Africa, India and Israel to improve the formulation of vaccines, and are investigating variant field isolates of Avibacterium paragallinarum in South and Central America.

During his presentations, he discussed major points on

1. Brief Introduction to Infectious Coryza.
2. Problems with to Infectious Coryza around the world.
3. Correct identification of pathogen
4. Importance of Serogroups and Serovars
5. What makes serovar C-3 so important?
6. Adjuvants.
7. Vaccine Reactions
8. Role of virulence in level of protection.
9. Ventri Biological's new infectious Coryza Vaccine.

Thus during his various presentations he has emphasized on emergence of various Serogroups and serovars in India and presented a detailed analysis on current status of Infectious Coryza and its impact on the Poultry industry as a whole

Dr. Bragg had elaborated that Infectious coryza still not under control and method for isolation and Identification of pathogen is the key to control the Infectious Coryza. The selection of the **chickens to select for isolation is very important. He mentioned that Species specific and serogroup specific PCR test for the identification of Av.paragallinarum works very well.**

He briefed regarding Ventri's Monitoring scheme for Infectious Coryza. He stated that ventri has observed 31.18 % positive for Infectious Coryza, 5.38 % of Mycoplasma, 1.08 % of ORT and 12 % of P.multoicoda with nasal discharges through FTA cards in commercial layers received from all over India. It was concluded that every nasal discharge is not to Infectious Coryza Hence continuous monitoring is important.

He stated that the Serogrouping and Serotyping is the most important aspect of diagnosis of Infectious Coryza and ultimate goal of Infectious Coryza control is reliable system for molecular characterization of strains. In India isolates first identified was A and C then B strains. Large numbers of untypable isolates were identified as C-2 and C-3 serovar when tested with rabbited raised antiserum. **Serovars identified in India: Serovar A-1, B-1, C-2 and C-3**.He stated that before doing the IC vaccination there is necessary to ensure the vaccines used contains the serovars present in the country and the cross protection in serogroup C is highly strain dependent.He also stated that the C-3 is the very virulent type of serovar and causes 3-4 % morality with affected birds and up to

40 % egg production drops in future layers.

He mentioned that Ventri Biologicals introduced Infectious Coryza Vaccine with serovar

A-1, B-1, C-2 and C-3 along with VISA-15 (Ventri's Immunostimulant Adjuvant launched in 2015) technology. This updated vaccine definitely helps to protect the birds against current type of Infectious coryza challenges.

27th January 2016 at Pune

Veterinary consultants from Pune and surrounding area attended the technical seminars. Mr. Deepak Khosla (GM Marketing) and Mr.Ram Ghate (ZM West Zone) welcomed and facilitated the Speaker and delegates. Dr.Ganesh Darban (AGM-Product) introduced Prof. Robert Bragg. Prof.Robert Bragg had nicely presented his technical presentations on **Progress in the Fight against Infectious Coryza: Monitoring is Critical**. Dr. Sanjay Gavkare (GM production) had narrated on VISA 15 technology. He shared some valuable information on Adjuvant technology. Mr.Ram Ghat expressed vote of thanks to all participants.

28th January 2016 at Vijaywada

Veterinary consultants, Layer farmers, Breeder Associates and Broiler Integrators from Vijaywada and surrounding area attended the technical seminars. Mr.Vijay Babu (ZM South I B Zone) welcomed and facilitated Speaker and delegates. Dr.Ganesh Darban introduced Prof.Robert Bragg. Prof.Robert bragg had nicely presented his technical presentations on **Progress in the Fight against Infectious Coryza: Monitoring is Critical**. Mr.Vijay Babu expressed vote of thanks to all participants. Dr.Somi Reddy (MD Srinivasa Hatchery) and team also graced the occasion. Dr.Ganesh Darban presented on current health challenges and effective solutions for vijaywada poultry belt.

29th January 2016 at Hyderabad

Veterinary consultants, Layer farmers, Breeder Associates and Broiler Integrators from Hyderabad, and surrounding area attended the technical seminars. Mr.Deepak Khosla (GM Marketing) and Mr.Suneel Sharma (AGM South I A Zone) welcomed and facilitated Speaker and delegates. Dr.Ganesh Darban introduced Prof.Robert Bragg. Prof.Robert bragg had nicely presented his technical presentations on **Progress in the Fight against Infectious Coryza: Monitoring is Critical**. Mr.Suneel Sharma expressed vote of thanks to all participants. Mr.K.G. Anand (GM, South I A Zone) and his team also graced the occasion.

30th January 2016 at Chandigarh

Veterinary consultants from State of Punjab, Haryana attended the technical seminars at Chandigarh. Mr. Deepak Khosla , Mr.H.S Padda,(DGM, Marketing ,North and East Zone), Naveen Sehegal (AGM ,North Zone) and Mr. Raju Tanna (ZM, North I Zone)welcomed and facilitatedthe speaker and delegates. Dr.Ganesh Darban introduced Prof.Robert Bragg. Prof.Robert bragg had nicely presented his technical presentations on **Progress in the Fight against AInfectious Coryza: Monitoring is Critical.** Dr.Sanjay Gavkare concluded the session while discussing few more updates on VISA 15 technology, drift variation of IBD virus and Genotype evolution of NDV in India. Mr. Raju Tanna expressed vote of thanks to all participants.

1st to 5th February 2016 at Namakkal, Coimbatore, Mysore, Bangalore, Davangere and Hospet(South II A ,B, C and D)

Veterinary consultants, Layer farmers, Breeder Farmers and Broiler Integrators and In house team attended the technical seminars. Dr.N.Baburaj(AGM South II A, B C and D Zone), Dr.Nandkumar, (ZM South II D), Mr.Chinnaraj (ZM, South II B), Mr.Manjunath, ZM (South II A), welcomed and facilitated Speaker and delegates on respective locations. Dr.Baburaj introduced Prof.Robert Bragg. Prof.Robert bragg had nicely presented his technical presentations on **Progress in the Fight against Infectious Coryza: Monitoring is Critical.** Mr. Nantakumar, Mr.Chinnaraj and Mr.Manjunath expressed vote of thanks to all participants on respective locations. Dr.Meghnathan (AGM,Chick sale Nammakal.) and his team Dr.Narsa Reddy (AGM,Chick Sale North Karnataka) and his team, Dr.Nagbhushan (DGM Venco Technical Services, Banglore) and his team and Dr.Harsha Shetty (GM, Venco Technical Services) and also graced the occasion. Dr.Ganesh Darban and Dr.Vinit Deshpande (Product Manager Ventri Biologicals) attended the seminar and interacted with layer farmers.

PRESS RELEASE

Photographs taken during Seminar at Pune

Dr.Sanjay Gavkare and Prof.Rober Bragg

MR.Deepak Khosla

MR.Ram Ghate

View of the Audience

Photographs taken during Seminar at Vijayawada

DR.PRASAD AND PROFF.ROBERT BRAGG

DR.VISHWAS

MR.VIJAY BABU

PROF.ROBERT BRAGG

View of the Audience

Photographs taken during Seminar at Hyderabad

MR.K.G.ANAND

MR.Suneel Sharma

PROF.ROBERT BRAGG

Photographs taken during Seminar at Chandigarh

MR.H.S.PADDA

DR.RAKESH GUPTA AND PROFF.ROBERT BRAGG

DR.SODHI AND PROFF.ROBERT BRAGG

DR.GANESH DARBAN, MR.RAJU TANNA, DR.SANJAY GAVKARE, PROF BRAGG

Photographs taken during Seminar at Coimbatore

View of the Audience

Photographs taken during Seminar at Namakkal

PROF.ROBERT BRAG

DR.BABURAJ

Dr.Meghnathan

View of the Audience

View of the Audience

A.P. POULTRY EQUIPMENTS

Pioneers in Poultry Incubators

HI-TECH INCUBATORS & HATCHERS

Killer Cone / Halal Cutting

De - Feathering Machine:

Chicken Portioning Machine

Feed Plant (Feed Mixer & Grinder)

Solar Incubators

For Further Details Please Contact:

M. Prabhakar Reddy

Managing Partner

Mob: +91 9849212325, +91 9848123203

Office:
Villa No-45, Ramky Villas, Near HMT, Sathavahana Nagar,
Opp: KPHB, Kukatpally, Hyderabad-72. Telangana. INDIA.

Factory:
Plot No.365 & 366, Gokul Plots, Venkata Ramana Colony,
Near Vasanth Nagar, Kukatpally, Hyderabad-72. A.P. INDIA.

Email: appoultry@yahoo.com, appoultry@gmail.com, mprabakarreddy@gmail.com
Tel/Fax: +91 40 23151576 | **Website:** www.appoultry.com

SAI KRISHNA

POULTRY EQUIPMENTS

Chick Feeder

Egg Tray

Chick Feed Tray

Chick Drinker

Drinker
(Assemble Valve System)

Deluxe Drinker
(Standard & Large)

Feeder

Gas Brooder

Chain Link Mesh

Jumbo Drinker

SAI KRISHNA PLASTIC INDUSTRIES

Manufacturers of Plastic Poultry Equipments

Factory : Behind Petrol Bunk, Padmanagar, Karimnagar - 505002, Tel : 0878 - 6504508, Mobile : 98490 59508
Sales Depot : Plot No : 11,Road No:2, Opp : Nimanthran Function Hall, Mamatanagar Colony, Nagole, HYDERABAD - 68. (A.P),
Tel : 040 64610508, Mobile : 92466 59508, E-mail : info@saikrishnapoultry.com, Web : www.saikrishnapoultry.com

PRESS RELEASE

MERIAL
A SANOFI COMPANY

zoetis

Mumbai, India - March 07, 2016 -Merial, the animal health division of Sanofi,and Zoetis India Limited, a subsidiary of Zoetis Inc, today announcedthat they have entered into anexclusive marketing and distribution agreement for medicines and vaccines for Dairy cattle in India. Merial will market and sell Zoetis' products, includingglobal/ local brandssuch as Bovical®, Lutalyse®, Xnel® Dectomax® and vaccines like Rispoval®and Spirovac®. The products will be marketed by Merial India beginning in April 2016.Financial details of the agreement were not disclosed.

"The newly added products complement Merial's existing ruminant business in India, which includes vaccines, therapeutics and nutritionals. It increases our presence in the important dairy segment and expands our current product offerings. We now have a robust portfolio that has strong customer loyalty, making us a key player in the rapidly growing India ruminant market," said Sandeep Karkhanis, Country Manager, Merial India. "This agreement reinforces the strategic importance of India and the animal health market in the country. We plan to keep our focus and investment in product innovation, acquisitions and alliances, growth areas and services to meet the evolving needs of our customers."

In India, Merial has a diversified local portfolio of over 50 brands comprising of vaccines, therapeutics and nutritional products for ruminants, poultry and pets.

Ketan Dhamanaskar, Managing Director, India, GM South Asia, Zoetis, added "This agreement helps both companies use the strengths of our product portfolios and market strategies to grow in a more effective way. Zoetis' leading dairy brands and innovative vaccines, combined with the strong distribution reach and presence of Merial in India,will enable us to make these products available in the most efficientmanner in the Indian market. As a result of this arrangement, Zoetis India Limited will also be able to focus its field force and resourceson building a stronger presence and market leadership in the Poultry and Companion Animal sectors in India, which grew at 18.6% and 12.8% respectively in 2015[5]."

India is the world's largest milk producer, with 16 percent of global production1.Therefore, presence in the ruminant business is strategically important for Merial India as it constitutes 54 percent of the animal health market in the country2. In 2014, the ruminant health market in India was valued at 240M•2.The Dairy sector continues to be a major livelihood source for rural India and a significant contributor to thecountry's agricultural economy3.As per the industry estimates, the share

dairy products in the milk and milk derivatives segment is growing byaround 25% every year and is expected to continue to grow at the same rate until 2019-20[4].

India is the sixthlargestchicken producing country in the world with annual production of more than 2 billion broilers and is the thirdlargest egg producing country with 4 Million+ metric tons eggs produced in 2015. The India poultry market is expected to grow at 14.4% in the next five years5. Consumption of poultry meat and eggs also witnessed bourgeoning growth at 2.7 to 4.2% year on year in the past 5 years and is expected to grow at an accelerated pace in the next five years[5].

Companion animal is a small but rapid growing market in India, with a total estimate of 15 Million dogs and cats, growing at 9%-10% year on year, coupled with the increasing pet owner spending, India companion animalmarket has potential and poised to grow in next five years[6].

[1]FAO[2] CEESA and Industry Estimates[3] IFCN, Yes Bank,. (2015). Dairy farming in India, A global comparison.[4]Credit Analysis & Research Limited,. (2014). Indian Dairy Industry 2014 Report.[5] Vetnosis data June 2015 [6] Euromonitor

About Merial

Merial is a world-leading, innovation-driven animal health company, providing a comprehensive range of products that focus on disease prevention and overall health and wellness in animals, Merial has three main business areas: pets, farm animals, and veterinary public health, and our health solutions target more than 200 diseases and conditions across a variety of species. Merial employs 6,900 people and operates in more than 150 countries worldwide with over •2.5 billion of sales in 2015.Merial is a Sanofi company. For more information, please see www.merial.com; @Merial

Merial Media Relations

Aparna Thomas

Senior Director -

Communications & CSR (India & South Asia)

+91 (22) 2803 2169

aparna.thomas@sanofi.com

Priya Chandramohan

Head of Merial Asia Communications

+65 9114 8315

Priy.Chandramohan@merial.com

About Zoetis

Zoetis (zô-EH-tis) is the leading animal health company, dedicated to supporting its customers and their businesses. Building on more than 60 years of experience in animal health, Zoetis discovers, develops, manufactures and markets veterinary vaccines and medicines, complemented by diagnostic products and genetic tests and supported by a range of services. Zoetis serves veterinarians, livestock producers and people who raise and care for farm and companion animals with sales of its products in more than 100 countries. In 2015, the company generated annual revenue of $4.8 billion with approximately 9,000 employees. For more information, visit www.zoetis.com.

Zoetis Media Relations

Anne-France Quentric

Senior Director,

International Communications

+33 6 85539587

anne-france.quentric@zoetis.com

PRESS RELEASE

29 February 2016

In a recently released technical video, Mike Bedford, Research Director at AB Vista, highlights new research that more precisely identifies how phytases work in the animal.This helps explain where the performance benefits of phytase superdosing are really coming from and why important differences can be seen between commercial phytases.

Many end-users have now adopted the practice of superdosing, using higher phytase doses in feed to reduce the anti-nutritional effects of phytate (IP6) in pigs and poultry. This has proven to give additional animal performance benefits beyond standard phytases doses.

Recent publications have shown that it is not just phytatethat has anti-nutritive effects; the breakdown products of phytate - IP5, IP4 and IP3 - can also have an anti-nutritive effect in the animal.These lower phytate esters have been shown to correlate with poor digestion of protein, energy and minerals, indicating that they have an anti-nutritive effect in the animal. The key point is that, with standard phytase dosing, we may be degrading one anti-nutrient and simply replacing with another.

Despite this, confusion still exists in the market as to what superdosing is and how this should be defined. Ongoing research and customer experience has helped AB Vista go a step further in defining superdosing as; 'feeding enough of an effective phytase to prevent the build-up of lower phytate esters such as IP3 and IP4 in the gut of the animal'.

"When we think about phytases, we should think about them as enzymes to effectively breakdown IP5, IP4, and IP3 as well as IP6. We want phytasesnot only to release the P we need, but to eliminate all inhibitors of digestion, and enable the animal to grow more efficiently. Superdosingphytase does exactly that."

This also sheds light on why we see differences between commercial phytases, which differ significantly in their ability to break down phytate and the lower esters IP5, IP4, IP3, even when fed at high levels. For animal producers to see a greater return from their phytase programme, they need to select an effective phytase,such as Quantum Blue which, when applied at superdosed levels, can breakdown IP6 and continue to destroy the anti-nutritive lower phytate esters, even at low concentrations of phytate, Dr Bedford says.

"Choosing a phytase simply by determining how much phosphorus it releases does not give the full picture. Scientific data now allows us to better understand exactly what effect phytases have in the gut, and thus maximise the performance benefits that can be made through effective superdosing."

The new video featuring Dr. Mike Bedford ('Superdosing - where are the benefits coming from? Part one: complete phytate destruction') can be viewed on the AB Vista website - www.abvista.com. It is the first in a new technical video series from AB Vista, titled "Extraordinary Science Brought to Life".

Polchem is a well known Indian company, based in Pune (160kms South East of Mumbai) focusing on the poultry and ruminant sectors. The company has its own state of the art production facility in Pune, a highly strategic hub for poultry production and animal health.

Founded over 25 years ago by the two managing partners - Nitin Sahasrabudhe, a chemical engineer and Milind Lamaye, a veterinary microbiologist, the company employs 270 people and has established a strong reputation for service through a team of field-based veterinarians backed up withfirst class diagnostic and laboratory support.

The 2 partners and existing management team will remain in place, to continue to grow Polchem's flagshipfeed supplement and disinfectant ranges and develop Ceva's innovative poultry vaccines and ruminant products in this important market.

For Ceva, this is a significant move into one of the world's fastest growing economies. India is theworld's No.1 milk producer and 5thlargest poultry producer. Both these sectors are strategically important for the company, which has a number of appropriate, innovative solutions for poultry and dairy producers

Commenting on the deal, Ceva Chairman and CEO, Marc Prikazsky said: "India is much too strategic a country to ignore and yet we did not want to enter the market before finding the right partner. In Polchem, we believe we have found a partner, who shares our values and as a result is the right team to take our products into this important market."

For Polchem, this marks a new era of high-tech poultry vaccines backed by equally advanced vaccine delivery technology in ever evolving Indian poultry market. Indian dairy sector is poised for a big qualitative leap in coming decade and will certainly undergo a process of consolidation. Polchem team is excited over an innovative ruminant range from Ceva for cost effective control of infections and infertility.

Polchem founder directors, Nitin and Milind expressed their strong desire to work with Ceva in future. Among many multinationals approaching for collaboration, we found Ceva philosophy and technology to be perfectly in sync with ours said Milind on this deal. Nitin stressed upon the synergisticviewpoint of Ceva to encouragePolchem range domestically and internationally while establishing Ceva products and services in Indian market.

INDIAN HERBS, the pioneer & global market leader and No.1 Company in Herbal Animal Health Care Products Industry since 1951, actively participated in 4th PASCHIM BANGA POULTRY MELA 2016 held at Milan Mela Complex, Kolkata from 17th to 19th February, 2016 with its strong Technical and Marketing team. It became the proud recipient of First Prize Trophy for its beautiful and attractive stand. INDIAN HERBS dedicated this award to its valued customers and well wishers to recognize their invaluable support to the company and its unique range herbal products.

INDIAN HEBRS's stall, in Hall No. A, attracted a large number of visitors, including feed millers, integrators, large farmers, consultants, nutritionist and distributors etc. The main objective of INDIAN HERBS was to provide technical information on its unique range of herbal poultry products which are the best alternatives of synthetic products. These products are not only most economical and ecofriendly but also improve the quality of feed and profitability. The R&D Centre of INDIAN HERBS is consistently working hard on herbal ingredients to provide the industry best quality herbal alternatives of synthetic products. INDIAN HERBS is very sure that we can provide unique products to improve the health and performance of the birds.

There is a great concern about the harmful after-effects of synthetic AGPs. Many European countries have already banned the use of synthetic AGPs in the feed as growth promoter for poultry production. The Ministry of Agriculture, Govt. of India had already issued guidelines with regard to stoppage of in-feed antibiotics and withdrawal period of antibiotics. The products of INDIAN HERBS are natural, safe, efficacious, environment friendly, hence there is no withdrawal period of these herbal products. Therefore, the herbal products are becoming clear choice for the consultants and farmers. These products are suitable to produce ANTIBIOTIC FREE CHICKEN / EGGS.

The company's portfolio includes herbal healthcare and nutritional products catering to wide range of animal species including ruminants, poultry, equine, swine, pets, aquatic and other animal species for the last 65 years.

INDIAN HERBS is the first and prime inventor of herbal concepts in Poultry Feed Supplements with better feed quality and profitability. It has introduced the research oriented herbal products in important segments such as Choline (BioCholine), Vitamin C (Herbal C), Vitamin E (E-Sel Power), Methionine (HerboMethione Plus), Lysine (HerboLysin), AGP (Herbiotic FS), Immune Potentiator (ImmuPlus & ImmuGreen), Metabolic Stimulant and Liver Tonic (LivoLiv-DS & LivoLiv 250), Coccidiosis (CocciBan), Natural Calcium (MagaCal), Respiratory Antiseptic (Animunin) Antistress & Adaptogen (StressCheck), Renal Tonic (NephTone) etc. These products are brand leaders in their respective segments and are being used successfully by leading institutional customers in India as well as abroad with excellent results.

The company holds strong market share of poultry feed supplements in the domestic market and is successfully competing with multinational companies. INDIAN HERBS is the No.1 Company in the herbal poultry industry.

INDIAN HERBS is successfully marketing its products to more than 50 counties across four continents including






Asia, Europe, Latin America and Africa successfully. In many countries, these products are under active consideration for granting registration or authorization for marketing. INDIAN HERBS has received the certificate from EXPORT INSPECTION COUNCIL OF INDIA, Ministry of Commerce and Industry, Govt. of India and was the first Herbal Company to get this recognition.

The R&D Centre of INDIAN HERBS is equipped with the best available state of the art modern facilities for standardization and quality control of herbal products and is approved by the Ministry of Science & Technology, Govt. of India since 1986.

All the herbal ingredients meet the Quality Control standards, set for each particular ingredient. Every herbal ingredient is authenticated by experts, involving both macroscopic and microscopic examination of each plant material. The bioactive principles of herbs are identified by the bioactivity guided fractionation assay and chemical structure of bio-actives are also determined. This process is being followed religiously to ensure batch to batch consistency of the end product.

Extensive research for scientific evaluation on its herbal products in comparison to synthetic products have been done in India and abroad. More than 190 scientists have been awarded Masters and Doctorate degrees for their research work which has resulted in publication of more than 750 research papers in the eminent national and international scientific journals.

INDIAN HERBS has the distinction of getting more than 22 Patents in USA, Europe, India etc and many Patents are pending in USA and other countries for innovative research on herbs and herbal products.

The research work done by INDIAN HERBS for better animal health, feed quality and to reduce the production cost for better profitability were well appreciated by the visitors. All the queries of the visitors were answered by the technical team of INDIAN HERBS to their best satisfaction.






PRESS RELEASE

Lumis has exemplified this in its vision of becoming the foremost enzyme manufacturer offering customized enzyme solutions. The participation of Lumis Enzymes along with their esteemed distributor F J Wegon Animal Health Inc., at the 2016 INAHGEN Farmer's Congress recently in February 24-26, 2016 in the Philippines was a great success. Inahgen is one of the largest and prestigious animal health exhibitions in Philippines. The booth drew significant buzz with its 3.5-foot Pink Elephant, visible from a distance which drew the crowd towards it even if to just take a selfie making their slogan " the Pink Elephant has Landed" a great hit. With the efforts of the energetic team of their distributor and coupled with the unique technology behind Lumis' products, paved the way for exciting business opportunities with the Filipino farmers, integrators and multinational feed millers.

They exceeded their customer expectations in terms of offering customized enzyme concepts and technical information which according to the customers was not only overwhelming but also farsighted compared to other enzyme suppliers. They were tagged as being "pioneers in really customizing enzymes"

Customers visiting their booth were thoroughly impressed in terms of the technical service Lumis team offered and their distributor team were happy that the exhibition turned out to be very constructive in establishing a strong customer base and are upbeat about exhibiting at the next Inahgen

Lumis Enzymes is exclusively distributed in the Philippines by FJ WEGON Animal Health, Inc., an affiliate of Simon Enterprises, Inc.

PRESS RELEASE

Biomin®

14 March 2016 - A full 60% of feed and livestock industry professionals encountered a problem with mycotoxins in the past 12 months, according to a recent poll.

"This confirms what we see in the 2015 BIOMIN Mycotoxin Survey," noted Dr. Simone Schaumberger, Mycotoxin Risk Management Product Manager at BIOMIN. "It's a fact that mycotoxins cost the global livestock industry billions each year," she added.

Unexplained problems

A further 18% of respondents answered that they "maybe" had encountered a mycotoxins challenge in the past 12 months. Uncertainty in the field may be explained by the vast diversity and combinations of mycotoxins found in livestock production situations. "There are a host of health and performance issues associated with low concentrations of multiple mycotoxins that can be difficult to detect," explained Dr. Schaumberger. "Regular testing of feed, use of sophisticated detection methods and even prophylactic use of a mycotoxin deactivator may help alleviate the situation."

Product use widespread

Furthermore, three out of four respondents said that they have used a product to counter mycotoxins in the past year. "Due to structural differences among various mycotoxins, farmers need to use different strategies to successfully address a mycotoxin challenge: adsorption, biotransformation and bioprotection," observed Dr. Schaumberger. Binding, or adsorption, can be effective against some mycotoxins such as aflatoxins. Certain commercially available binders may adsorb vitamins in nutrients in the feed, diminishing feed quality and hampering animal performance. "It's important to select a mycotoxin deactivator that has been tested for safety and efficacy in vitro and in vivo using recognized, relevant biomarkers," she stated.

About the poll

The poll of feed and livestock industry professionals was conducted during the 3 March 2016 webinar "Mycotoxin Detection and Survey Results" hosted by BIOMIN and Romer Labs. Answers were collected from 308 respondents in 86 different countries, including veterinarians, nutritionists, quality assurance and control managers, livestock managers, farmers, feed millers, researchers and scientists.

More information on the global mycotoxin threat can be found here on www.biomin.net.

INTERNATIONAL POULTRY EXPO 2016

(Opportunities for all at all places)

A Joint venture of Tejasvi Events, People for Poultry & Poultry Technology

Front view of Golden Blossom

9, 10, 11 APRIL 2016

LUCKNOW, U.P.

Venue: GOLDEN BLOSSOM (AC)

Faizabad Road, Anora Gaon, Lucknow - 226028, U.P.

Contact:

POULTRY MEDIA EVENTS

2-1-444/16, 1st Floor, O.U.Road, Nallakunta, Hyderabad - 500044.
Ph: 040-2761 0027, M: 98493 68003, 96442 33397
Email: poultrymediaevents@gmail.com

We offer a streamlined and cost-saving system for disposal of feathers into an ecological product - liquid fertilizer rich on organic nitrogen.

Investment is between 1 - 3 mil. EUR

Return on investment between is 12 - 36 months

Model of Joint-Venture cooperation

Our company will provide existing know-how and new technological knowledge from the practice, results of science and research, achieved agricultural experiment from different countries, documents for the certification and authorization processes, marketing documents, project documentation for building and technological process. We will provide all necessary documents and supervision of the start-up production and logistics for inputs and warehousing of finished product.

Joint-Venture partner will secure the sales of all production capacity of the plant. Partner will provide the location for production, all permissions for building and technological process of the plant, certification of required products for production and permissions for sale. Partner will do marketing and sale of whole production based on the future contracts with guaranteed sale. Partner will provide various forms of investment state aid for us as a strategic investor, financial and tax relief and state subventions for farmers. Partner will provide financial instuments for plant construction from own sources or investor´s sources or loans for joint-venture. In the joint-venture partnership we can accept also state or local province or municipality´s percentual ownership, which would provide long-term contract for our products in the model of state subvention for farmers and agricultural units.

This is offer from ROKOSAN to the global market and any country.

Our model of work

We are coming to any country as a strategic partner, because we solve processing of animal waste and at the same time, through our know-how, we secure self-sufficiency of the country in the area of amino acids fertilizer´s production, without waste. We are bringing the food safety through our know how. Our grown crops and products are the export article, because of their brand as an environmentally friendly product. For each government we are a lucrative political instrument to promote the programme in the area of soil biodiversification, forests revitalisation, communal waste dump recultivation, groundwater protection and prevention of air by polluted emissions.

Frequently Asked Questions to the Owner:

1. What is the required area for each plant?

The land area for each plant with production capacity of 15.000 t of fertilizers per year is cca 3-4 ha

2. What is the production capacity of each plant? 5000t or 15000t?

The production capacity can be set up according to sales of our partner. It means, that minimum capacity is 5.000 t per year and maximum could be also 100.000 t. All depends from the market logistics and whether one region/province can absorb those 100.000 t. It might be convenient to build up a new plant in another region/province.

3. What is the investment amount (in EUR) estimated for each plant?

All depends from the level of automatization of the plant. The project has to be split in two parts.

The costs for:

1/ Building and construction - halls, warehouses, access roads - cca 1-2 mil. EUR

2/For instalation of technology cca 1-3 mil. EUR

4. Are poultry feathers the only raw materials of your product?

No, but feather is the largest renewable source for

amino acids fertilizer´s production, without waste. Further it could be hair, remnants of the skin, horns and hooves from cattle, camels, wool of sheeps and bones from above mentioned animals.

5. Could you provide any diagram for the production process of your product?

Please, see the youtube video on https://www.youtube.com/watch?v=YbDT46m0-Xs.

6. Do you have any specific preferences/ requirements for your site selection?

All depends from the building permission, certificate for manufactured product, permission for production and sale, approval for imported technology in to country, or the other permissions such is EIA (Environmental Impact Assessment). After obtainig all the permissions, we are able within 3 months, if the line and technology will be installed, to prepare the trial operation and then full-fledged operation. We would prefer, if the location would be in the existing industrial zone, which is focused on waste processing or chemical production, as the process of obtaining all the permissions would be much quicker, we think. It would required only extension of the production´s permission for this zone and for our product. We would prefer an area with the infrastructure, roads, industrial hall and warehouses. All these things would make our investment, production and sale much quicker.

Please, find more on: http://investin.sk/joint-venture-offers/agrobiofert-plant-project_i41

https://www.youtube.com/watch?v=YbDT46m0-Xs

Sincerely,

Ernest Rakonczay

President

The Slovak Association of Exporters and Importers SAEI

M: 00421903133460

I E: rakonczay@saei.sk I W: www.saei.sk

SOURCE : SRINIVASA HATCHERIES

8 March 2016 - Ceva Santé Animale has today posted growth of 11.9% constant perimeter and 10.4% at constant exchange rates for 2015 on turnover of 857 million euros. Its performance moves it up the table of animal health businesses to number 7, and continues its record of posting double-digit growth every year since the Group's formation.

The results show that Ceva is once again one of the fastest growing in its sector, as it looks to become the largest animal health business in France once the merger between Merial and Boehringer Ingelheim takes effect.

Dr. Marc Prikazsky, CEO of Ceva Santé Animale Group said: "2015 was another excellent year for Ceva Animal Health and is another important step forward in realising our ambition to be in the global top 5 of our sector by 2020. Looking ahead, we are in the process of making major acquisitions in key markets, such as the recent one in India and will continue our programme of investment in our production facilities. We already invest more than 10% of our turnover in research and development, and will continue to leverage our pipeline to deliver further significant product innovation across all sectors and in all markets. "

International expansion

Ceva recently acquired Polchem, an Indian Veterinary business specializing in the avian and dairy sectors. This marks Ceva's entry into this important global market with India being the world's largest milk producer and the fifth largest poultry producer. Based in Pune, 160 km southeast of Mumbai and founded 25 years ago by Nitin Sahasrabudhe, a chemical engineer and Milind Lamaye, veterinary microbiologist, the company has built a strong reputation in the poultry and dairy sectors. It has its own production facilities, R&D and laboratory facilities and currently employs 270 people, including several veterinarians.

Under the proposed deal, both partners and the management team will remain in place to drive forward the expansion of Polchem's flagship lines in (disinfectants and food supplements) and to develop sales of Ceva's innovative poultry vaccines and ruminant products in India.

"India is a country too strategic to ignore, but we did not want to integrate our operations in this market before finding the right partner to assist us. Polchem shares our values and have the right team to bring our products to this important market." added Dr. Marc Prikazsky.

New double-digit growth in 2015

Sales grew across all regions. In terms of species markets, poultry experienced significant growth (+ 24%), boosted by strong demand for Vectormune® ND and Transmune®, Ceva's innovative avian vaccines. Alongside geographical expansion, the launch of new swine vaccines, especially Coglapix® (pleuropneumonia) and Hyogen® (mycoplasma) and the recent launch into the US swine market, marks the beginning of a new cycle of growth to support the Group's ambitions.

A key part of Ceva's recent success is becoming the third largest producer of poultry vaccines globally and in avian biology more broadly, being the largest producer in Brazil and second-largest in the USA. In addition to providing innovative vaccines, the group advocates early vaccination in hatchery (in-ovo or day-old chicks) to promote better chick welfare. Ceva already provides a complete hatchery vaccination service to its customers and in the light of further growth opportunities in this part of the market Ceva has acquired two companies in France: Ecat in 2013 and iD Projects (1 March 2016). The merger of these two companies will help create a global leader in automated and in-ovo hatchery vaccination.

Modernization of production facilities and launch of new products

In 2016, Ceva plans to invest more than 80 million euros in its principal global sites in France - Laval, Libourne, Loudeac, USA, Lenexa, Hungary, Budapest and China, Beijing to ensure that all facilities are state-of-the art. More than 10% of its turnover will be invested in R & D (50% in pharmaceuticals and 50% in Biology) to develop innovative new products, such as the recently launched Amodip® and Velactis®

Amodip® is the first treatment for feline hypertension, a chronic disease that can cause serious lesions in organs of cats. This drug represents a breakthrough because for veterinarians who were obliged to prescribe "off-label" a drug designed for humans.

Launched on the European market in early 2016, Velactis® is the first and only facilitator for dry-off in dairy cows. This innovative drug improves the udder health and welfare of dairy cows while helping farmers in the management of a crucial period in the dairy production cycle.

Dr Marc Prikazsky said: "Velactis® is a major breakthrough. We hope this will become an essential management tool for dairy farmers."

Alltech, a global leader in animal health and nutrition, conducted Mycotoxin Blitz dinner meeting in Hyderabad and Coimbatore on February 24 and 25, 2016.

The meeting was attended by renowned feed millers and farmers, bringing the count to 70-plus customers. The welcome note was given by Dr. Abdul Razak, regional manager Alltech AP and Telangana, in Hyderabad, and by Dr. G. Venkatesh, general manager of Alltech poultry, in Coimbatore. They shared Alltech's global activities, research, how Alltech is helping customers around the globe in redefining nutrition and introduced the evening's speakers.

Dr. Trevor Smith, adjunct professor of animal biosciences at University of Guelph, Canada, was the key speaker of the evening and shared his expertise on the topic "Mycotoxins and their hazards in livestock production." He spoke to the audience about how global climate change has resulted in unusual weather patterns, which contributes to drought, excess moisture and temperature extremes can increase the chances of mycotoxin contamination of feedstuffs. There has been a recent rise in the global trading of feedstuffs, which increases the chance of myctoxin contamination due to a blend of ingredients from various climatic zones.

The second topic of the day was "Managing mycotoxins in feed chain" by Dr. Lokesh Gupta, technical manager of Alltech South Asia. Dr. Lokesh discussed few key industry topics:

- The risk of mycotoxins continues from the sowing of seeds until the final feed consumption.
- Mycotoxins impair the performance and profitability of the animals; therefore, there is a need for using the right mycotoxin adsorbent.

- Dr. Lokesh shared the global testing of different feed and ingredients through Alltech 37+ lab and Alltech Heavy Metal Survey, which revealed that 100 percent of the inorganic clay-based mycotoxin binder samples were contaminated with at least two different heavy metals and 25 percent of these samples were contaminated with at least one heavy metal above European Union maximum levels.
- He gave an overview of the Alltech® Mycotoxin Management programme, consisting of Alltech 37+® (mycotoxin analysis), Alltech® MIKO (feed mill audit programme) and Mycosorb A+® which can help in reducing mycotoxin challenges.

Afterwards, Dr. Aman Sayed, general manager of Alltech South Asia, presented the Alltech 2016 Global Feed Survey. Dr. Aman shared some interesting facts and figures from the survey with the attendees, including:

- The global feed industry is estimated at almost 1 billion tons, with compound growth just over two percent a year in last five years.
- Global feed sales are worth $450 billion, based on average feed prices.
- Asia is the number one region in global feed and India is at fourth position globally.
- Over 32,000 feed mills in 131 countries were part of the survey.
- Global poultry feed is now at 463.7 million tons, up six percent from 2014 and accounting for 47 percent of total feed production.

"Alltech is showcasing our ability to be the company our industry can count on, to provide new ideas, exploring innovations that will reduce feed costs while at the same time increasing performance and profitability," said Dr. Aman. "We have been delighted to have our partners at this forum to discuss key issues and solutions."

Alltech ...naturally

Alltech conducted seminar on March 14th in Karnal, Haryana. The objective of the programme is to educate the industry about the current trends in mineral nutrition and mycotoxin management. The event was attended by various feed mill personnel and farmers to hear about hot topics in nutrition and listen to the experts on the current and future of the industry.

Welcomed by Dr. Bhupender Sharma, regional manager, Alltech Poultry north India by sharing the ongoing activities of Alltech, research updates and introduced the speakers to the audience.

Kicking off the main discussion, Dr. Richard Murphy, research director, Alltech spoke on the topic "Redefining Mineral Nurtition." He emphasized on the role and importance of organic minerals to meet the nutritional requirement of the modern poultry industry. By focussing on total replacement program (TRT) we can overcome challenges associated with traditional inorganic mineral nutrition strategies. Globally the Alltech TRT program has demonstrated that performance can be maintained or improved with a lower cost and can be used up to six times lower than commercial levels. Alltech is also using TRT to address meat quality issues and egg quality. Another important point highlighted , that minerals can destroy the supplemental enzyme activity such as phytase when used in rations. However, this interference is removed when minerals are presented in the Bioplex form.

This was followed by an informative presentation, Managing Mycotoxins in Feed Chain by Dr. Lokesh Gupta, technical manager Alltech South Asia. Where he laid the importance of using right mycotoxin adsorbent and how Mycotoxins impair the performance and profitability of the animals. In detail explained about the ALLTECH® MYCOTOXIN MANAGEMENT program consist of ALLTECH 37+® (Mycotoxin analysis), ALLTECH® MIKO (Feed Mill audit program) and MYCOSORB® A+

The evening's final presentation was done by Dr. Prakash Sarangi, Alltech senior regional manager,

Poultry north India. He shared interesting facts and figures from the Alltech Global Feed Survey 2016, says that Global Feed Industry volume is now estimated at almost 1 billion tons with CAGR just over 2% a year based on the past 5 year data. And on the global charts India is in 4th place. Global Feed sales are now worth $450 billion, based on average feed prices. Over 32,000 feed mills in 131 countries were part of the survey. Poultry feed globally is 463.7 million tons, up 6% over 2014.

Lastly, Dr. Vinay Godara, business development manager, Alltech poultry north India, wrapped up the session by giving, take home messages and extending heartfelt thanks to all the guests for their time and presence. The event was followed by gala dinner.

For more details write to india@alltech.com

PRESS RELEASE

Sixty Percent of Livestock Producing Regions Face High Threats from Mycotoxins: Latest BIOMIN Mycotoxin Survey

Biomin®

Mycotoxin-related threats to livestock production are severe or high in 60% of regions worldwide according to the latest BIOMIN Mycotoxin Survey. Those areas registered three or more major mycotoxins at concentration levels known to cause harm in animals. The survey results provide insights on the incidence of the six major mycotoxins in the agricultural commodities used for livestock feed.

Main findings

- Livestock production in North America and North Asia faces severe threat from mycotoxin contamination.
- South America, Central Europe, Southern Europe, Middle East, Africa and South-East Asia all face high threat from mycotoxins.
- Globally, deoxynivalenol poses the most frequent threat to livestock though levels of fumonisins and zearalenone also present a cause for concern.
- Half of all samples tested contained two or more mycotoxins.

Achieving greater heights

"The BIOMIN Mycotoxin Survey continues to expand its geographic coverage and depth of analysis year after year," said Ursula Hofstetter, Director Competence Center Mycotoxins at BIOMIN. This year more than 31000 analyses were conducted on 8271 samples from 75 countries across the world; up from 6000+ samples from 64 countries in the previous year.

Insight for industry

"As we further incorporate cutting-edge mycotoxin detection technology into the survey program, a much clearer and detailed picture of mycotoxin contamination emerges," explained Mrs. Hofstetter. For the second year, the survey includes results of multiple mycotoxin analysis of more than 380 mycotoxins and metabolites, Spectrum 380®, using state-of-the-art liquid chromatography-mass spectrometry/mass spectrometry (LC-MS/MS) in a single analysis step.

"These powerful tools are so sensitive that they detect even incredibly low levels of mycotoxins in raw materials and finished feed. Practically speaking, the food and feed industries need look beyond the prevalence (percent of samples testing positive) of mycotoxins, and focus on indicators that are meaningful for their operations. These include average concentration levels measured in parts per billion, sensitivity of livestock species, risk threshold levels, co-occurrence (multiple mycotoxins at once), masked mycotoxins not detected by conventional testing, and total mycotoxin load," added Mrs. Hofstetter.

About the survey

The annual BIOMIN Mycotoxin Survey constitutes the longest running and most comprehensive survey of its kind, using advanced analytic tools on more than eight thousand samples taken from 75 countries worldwide. Over 31000 analyses were conducted to identify the presence and potential risk posed to livestock animal production.

The full report can be found on the BIOMIN website, www.biomin.net

ROSSARI™
making you more competitive

RESPITE DX

Richness of essential oil

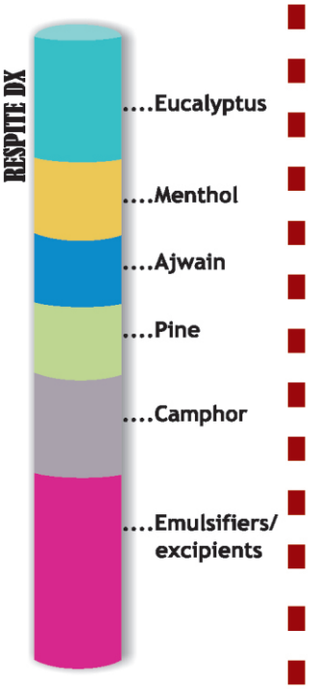
NATURAL PROTECTION

Bronchodilator + Spasmolytic

Anti-microbial + Anti-inflammatory

Positive impact on growth performance

No bacterial resistance



ANTIBIOTIC FREE

Application guidelines:

- 1 ml per 5 litre water in poultry drinking water twice daily X 3 days
- For spraying : 10-15 ml per litre water in total 3 litre of water 1000 birds twice daily X 3 days

ROSSARI BIOTECH LIMITED

(An ISO 9001 : 2008 & 14001 : 2004 Certified Company)

201-A & B, Ackruti Corporate Park, LBS Marg, Next to GE Gardens, Kanjurmarg (W.), Mumbai - 400 078.
Tel. No.: +91-22-2577 7605, Fax : +91-22-2579 6982, Email: info@rossarimail.com, Website: www.rossari.com

Date of Publishing : 1
Date of Posting : 4-5

POULTRY LINE RNI.APBIL/2001/3823 NO.R&D/RNP/HSE/751/ 2015-2017

Venky's

NaturoGen™ 510

With the highest developed natural solution :

Fit chicks perform better!

NaturoGen™ 510 is the phytogenic feed additive for profitable poultry production, naturally. The innovative phytogenic formulation is based on in-depth knowledge, broad experience and extensive research.

Benefit from a safe and efficient product :

- Improves nutrient digestibility and feed conversion ratio
- Supports intestinal health
- Enhances body weight & egg mass
- Improves bone strength
- Significant reduction of ammonia
- ROI of minimum 3 : 1

performing nature

For further information please contact :
VENKY'S (INDIA) LIMITED
ANIMAL HEALTH PRODUCTS DIVISION
An ISO 9001 Certified Company

"Venkateshwara House", S.No.: 114/A/2, Pune - Sinhagad Road, Pune - 411 030 (India) Tel : 020 - 32341865
Fax : +91-20-24251060 / 24251077 www.venkys.com e-mail : ahp@venkys.com