Philippine College of Poultry Practitioners, Inc. (PCPP)

SEPTEMBER
12 & 13
2024

The Grand Ballroom
Marriott Hotel Manila,
Pasay City

POULTRY SCHOOL

Poultry 2.0: Revolutionizing Through Innovations and Precision Farming

Philippine College of Poultry Practitioners, Inc

Two decades of sterling achievements providing world class veterinary service for the Philippine poultry industry to ensure healthy poultry, healthy Filipinos today and the years to come.

Philippine College of Poultry Practitioners, Inc

OUR MISSION

To contribute to the development of poultry industry through the promotion of ethical poultry practice by providing an effective forum for the professional veterinary expertise.

OUR VISION

The Philippine College of Poultry Practitioners, Inc. is an organization of poultry veterinarians that advocate the professional advancement of its members and is committed to the upliftment of the Philippine poultry industry.

Department of Agriculture

I extend my warmest greetings to the Philippine College of Poultry Practitioners, Inc. on the occasion of the 2024 PCPP Poultry School.

The theme for this year, "Poultry 2.0: Revolutionizing Through Innovations and Precision Farming," highlights the importance of modernizing approaches and integrating advanced technologies to enhance productivity and sustainability within the poultry sector. It likewise embodies the essence of the One Health Concept, which recognizes the interconnectedness of human, animal, and environmental health.

This initiative aligns seamlessly with President Ferdinand Marcos Jr.'s Bagong Pilipinas campaign, which aims to forge a resilient nation with a robust economy and a secure future for all Filipinos. We are taking significant steps toward achieving these goals and ensuring a sustainable and prosperous future for our country, by embracing innovations and precision farming. This holistic approach is vital in safeguarding not only our animal industry but also the health and well-being of our human population.

For nearly two decades, the PCPP Poultry School has provided the latest updates on disease management, nutrition, and financial and human resource management of the poultry industry. Your commitment to advance the skills and knowledge of veterinarians, production managers, and farm owners is truly commendable.

FRANCISCO P. TIU LAUREL, JR
Secretary of the Department of Agriculture

Message

Department of Agriculture

I would like to thank the Philippine College of Poultry Practitioners for inviting our department to this prestigious event. On behalf of the Department of Agriculture, it is truly an honor to be a part of the 2024 PCPP Poultry.

The PCPP presents a great opportunity to discuss the emerging, reemerging diseases and innovations that will define the growth of our sector. Events like this signify the importance of collaboration among one another.

I believe that it is important for all of us to collaborate with industry leaders, consumers, and the community to have a singular goal. The goal of setting up the Philippine poultry industry to become globally competitive in the world.

Topics such as poultry diseases, marketing trends, government policies, management, and nutrition updates need to be shared with our veterinarians, production managers, and farm owners.

Attention must be given to the growing poultry industry. This remains the biggest strength of the nation's economic growth. Thousands of Filipinos depend on our native or upgraded chicken inventory. However, the increasing demand of the human population as well as the diseases all play a part in holding back our country's growth. This is where utmost attention to the poultry industry must be given.

Emphasizing the need for an event such as the PCPP. A specific event where we can highlight the importance of being familiar with appropriate statutory, and regulatory requirements and compliance with the system. This in return will help us and the industry as a whole transcend to the betterment of the sector.

I fully hope that this event continues to fulfill its vision for the betterment of the future. The vision of giving the professionals and enthusiasts to extend their hands and expand their knowledge while making impactful connections within the industry.

I extend my heartfelt appreciation to PCPP Poultry for your commitment and steadfast contributions to the animal industry. The Department of Agriculture recognizes the importance of the Poultry School effort to our country.

With this, I highly trust the people in this room to discuss the wide array of topics that can help innovate our country's way.

Maraming salamat sa inyo! Para sa atin, para sa Bagong Pilipinas!

DANTE PALABRICA, DVM
Assistant Secretary for Swine and Poultry,
Department of Agriculture

Message

Philippine Eggboard Association

The PCPP Poultry School 2024 with the theme, "Poultry 2.0: Revolutionizing Through Innovations and Precision Farming" is a perfect venue to be updated on emerging and re-emerging poultry diseases, farm management concepts and nutrition. These are all crucial in ensuring the health and productivity of one of our country's most important food source industry.

I would like to express my respect and gratitude to your association for the dedication and commitment to advancing our local poultry veterinary medicine, for your vigilance in preventing and controlling disease outbreaks and for your role in fostering sustainable farming practices.

Congratulations to another productive and successful Poultry School.

FRANCIS UYEHARA
President,
Philippine Egg Board Association

Message

United Broiler Raisers

It's an honor and privilege to be part of this year's PCPP Poultry School. Just as our industry is beginning to recover its footing, we are again faced with these seemingly unsurmountable challenges that continue to disrupt our production cycles. With a united approach, we will see all these as temporary, so let us work together and solidify the foundation of our nation's food security.

JOSE GERARDO FELICIANO
President,
United Broilers Association

Message

PVMA

Greetings from the Philippine Veterinary Medical Association (PVMA)!

It is indeed a privilege to be a part of the 2024 Philippine College of Poultry Practitioners, Inc. (PCCP) Poultry School. It is my honor to welcome the participants, composed of fellow veterinarians, production managers, farm owners, and other poultry industry players, who continuously seek innovative learning engagements that would be of help to their chosen fields.

For nearly two decades, the Poultry School has provided ready access to current trends and topics, relevant policies, vital information on disease diagnostics, management of farms and poultry systems, and other areas that would equip attendees to navigate through the dynamics of the changing poultry industry amidst the rising human population.

Indeed, the theme for this year: "Poultry 2.0: Revolutionizing Through Innovations and Precision Farming" is a timely topic to discuss in the collaborative scientific learning arena. Discourses and technical exchanges of concepts involving the several facets of management, diagnostics of diseases, developments in marketing, disease prevention and control, modern housing innovations and updates on animal nutrition and experience-borne practices will equip the various stake holders to collectively navigate and participate in a globally competitive Philippine poultry industry.

Kudos to the participants as you consciously take part in this worthwhile engagement. Congratulations as well to the organizers of this event, the Philippine College of Poultry Practitioners, Inc. (PCCP) for it is certain that the 2024 Poultry School will be a success. Together, let us continue to prod one another to actively seek innovative thinking, strategies, and practices so as we can play vital roles in enabling the Philippine poultry industry to move forward and become globally competitive.

Mabuhay ang PCPP, Mabuhay ang PVMA, Mabuhay ang BETERINARYONG PILIPINO!

HARRIS G. CONSTANTINO, DVM
President,
Philippine Veterinary Medical Association

Message

2024 Poultry School

Greetings to all participants and guests! It is with great pleasure that we welcome you to the Philippine College of Poultry Practitioner's 2024 Poultry School, dedicated to providing stakeholders with the latest updates on diseases, management, and nutrition.

Under the theme of **"POULTRY 2.0: Revolutionizing Through Innovations and Precision Farming"**, we gather to explore the challenges and opportunities shaping our dynamic poultry sector. This annual event serves as a platform to exchange knowledge, share experiences, and spark innovative ideas.

The Philippine agriculture sector faces numerous challenges, and the poultry industry, a crucial pillar, is not isolated from them. Issues like disease outbreaks, high production costs, and import competition makes our focus on sustainability and resiliency more important than ever. Rapid changes in the world demand new approaches to production, management, and distribution.

Through enlightening lectures and engaging panel discussions, we will highlight the latest advancements and best practices that align production goals with environmental stewardship. From biosecurity measures to cutting-edge technologies, we will explore every facet of the poultry value chain.

Committed to sustainable consumption and production, we follow the One Health principle, recognizing the link between the health of our poultry, consumers, and the environment. This event foster unity among industry players, emphasizing that our collective strength is greater than individual efforts. Collaboration, knowledge transfer, and open dialogue are the cornerstones of our progress.

As we embark on this journey of knowledge exchange, camaraderie, and growth, let us stay committed to a sustainable and resilient poultry industry. May our discussion today inspire actions that create positive change.

On behalf of the organizing committee, I extend my sincere gratitude to our esteemed speakers, sponsors, partners, and attendees. Let us be the flock that will lift the Philippine poultry industry to a sustainable industry for all.

NANCY S. ROMANO, DVM, PhD, Fel. PCPP
President,
Philippine College of Poultry Practitioners, Inc.

Message

2024 Poultry School

Dear Participants, Distinguished Guests, and Industry Leaders,

Welcome to the PCPP Poultry School 2024! As the Chairman of this event, I am thrilled to share with you the exciting lineup of plenary speakers and sessions that await us.

With the theme: Poultry 2.0 – Revolutionizing through Innovations and Precision Farming, we recognize the need for more creative thinking and united effort to give this industry a bright future.

For our Plenary Speakers:

1. Government Agencies:

- The leaders of the Department of Agriculture and Bureau of Animal Industry will address the challenges faced by our poultry industry. They will discuss their programs for this year and beyond, emphasizing collaboration to overcome hurdles such as broiler meat imports, Avian Influenza, rising feed costs, complex diseases, and antimicrobial resistance.

2. Poultry Associations:

- Leaders from the United Broiler Raisers Association and the Philippine Egg Board will share strategies for ensuring a bright future for farmers and poultry food producers. Their insights will guide us toward sustainable growth and success.

3. Poultry Experts:

- Our esteemed poultry experts will delve into disease diagnosis and sustainability. Their knowledge will empower us to make informed decisions and implement best practices.

4. Climate Resilience:

- The Climate Change Commission will discuss disaster resilience in the face of climate diversity. Let's explore ways to safeguard our industry against environmental challenges.

Breakout Sessions:

- Participants can choose from a diverse range of topics, each highlighting cuttingedge technology and practical solutions. Whether it's precision farming, biosecurity, or nutrition, there's something for everyone.

Technical Posters:

- We've curated technical posters for your viewing pleasure. These posters showcase innovative research and practical applications. Take advantage of this opportunity to enhance your learning and stimulate analytical thinking.

Honor Roll Announcement:

- To add some excitement, we'll announce the honor roll based on the highest quiz scores. Let's celebrate excellence and recognize the hard work of our veterinarians and agriculturists in earning Continuing Professional Development (CPD) points.

At this point, my congratulations and thanks to the members of the PCPP Poultry School Committee, our Secretariat Deltaman, the PCPP Foundation and the members of the PCPP for all the support to make this event another success!

Thank you for being part of this enriching experience. Let's revolutionize the poultry industry together!

Warm regards,

VON RICHARD M. EBRON, DVM, Dip. PCPP
Chairman, PCPP Poultry School 2024
Vice President, Philippine College of Poultry Practitioners, Inc.

Message

Philippine Association Of Feed Millers, Inc.

On behalf of the Philippine Association of Feed Millers, Inc. (PAFMI), I would like to extend our warmest congratulations on the upcoming 2024 PCPP Poultry School. It is an outstanding initiative that underscores the importance of continuous learning and innovation within the poultry industry.

The theme “Poultry 2.0: Revolutionizing Through Innovations and Precision Farming” is both timely and relevant, especially as we face the challenges of emerging and re-emerging diseases. We appreciate the efforts of the Philippine College of Poultry Practitioners in equipping veterinarians, production managers, and farm owners with essential knowledge and insights that can help elevate the standards of our industry.

By leveraging each organization’s strengths and resources, PCPP and PAFMI can create a multi-faceted approach to enhance food security, reduce malnutrition and promote sustainability within the poultry sector in the Philippines.

Together, we can play a pivotal role in ensuring a more secure and nutritious future for all Filipinos.

Warm regards,

EDWIN C. MAPANAO
President,
Philippine Association of Feedmillers Inc. (PAFMI)

Message

PCPP

Philippine College of Poultry Practitioners, Inc.

PROGRAM OF ACTIVITIES

DAY 1
SEPTEMBER 12

Day 1

07:00am — Registration

Opening Ceremonies

08:30am-09:00am — Invocation and Philippine National Anthem
Dr. Herman Cruz, *Fel. PCPP*

Welcome Remarks
Dr. Nancy Romano, PhD, *Fel. PCPP President*

Session Orientation / House Rules
Dr. Von Richard Ebron, *Dip. PCPP Vice President, Poultry School Chairman*

Safety Rules Orientation
Safety Officer, Marriott Hotel Manila

PLENARY SESSION, *Moderator:* **Dr. Mel C. Umandal,** *Fel. PCPP*

09:00am-09:15am — Keynote Speaker: Message to the Stakeholders of the Philippine Poultry Industry
Dr. Dante Palabrica, *Assistant Secretary for Livestock, Poultry, & Swine, DA*

09:15am-10:00am — The BAI of Tomorrow: Glimpse of the Future
Diosamia M. Sevilla, MSc., *OIC Director of BAI*

10:00am-10:45am — Sustainable Agro-Enterprise and Disaster-Climate Resilience Situationer and Outlook
Dir. Jerome Ilagan, Planning Officer 5, Policy Research and Development Division Climate Change Commission (CCC)

10:45am-11:30am — Navigating Challenges: Strategies to Shape the Future of the Philippine Broiler Industry
Mr. Jay Feliciano, *President, United Broiler Raisers Association*

11:30am-12:15pm — Conquering New Heights: Bridging the Gap Between Production and Consumption
Mr. Francis Uyehara, *President, Philippine Egg Board Association*

12:15pm-12:30pm — Open Forum, Awarding of Certificates
Dr. Mel Umandal, *Fel. PCPP*

12:30pm-01:30pm — Lunch Break

BREAK OUT SESSION

Session A: Broiler, *Moderator:* **Dr. Raul Lopez,** *Fel. PCPP*

01:30pm-02:30pm — Principles of Precision Nutrition for Efficient Poultry Production
Dr. Jael Cheol Kim, *Head of Amino Acid Technical Solution, CheilJedang Bio*

02:30pm-03:30pm — Innovating Sustainability in Broiler Genetics
Mr. Dominic John Elfick, *Marketing Manager, Aviagen Asia Pacific*

03:30pm-04:30pm — Antibiotic Free Poultry Production
Dr. Arnel A. Bustamante, *Poultry Technical Manager, Alltech Biotechnologies Corp.*

DAY 1

SEPTEMBER 12

04:30pm-05:30pm Optimizing Gastro-intestinal Functionality to help tackle Antimicrobial Resistance (AMR)
Dr. Rolando Valientes, *Fel. PCPP*

Session B: Broiler Breeder, *Moderator:* **Dr. Orlando Fernandez,** *Fel. PCPP*

01:30pm-02:30pm Capitalizing Waste Through On-Site and Off-Site Composting
Engr. Devan Krishnan, *Business Development, Big Dutchman*

02:30pm-03:30pm Improving the quality and Bioavailability of Beta-glucans from Yeast
Robert Patterson, *VP Innovation & Commercialization, CBS Bio Platforms*

03:30pm-04:30pm Current Trends and Impact of Coccidiosis in Poultry
Dr. Demir Ozdemir, *Amlan International, APAC Commercial Development, Director, Nezus Phils. Corp.*

04:30pm-05:30pm Influence of Complexed Trace Mineral Sources on Production Performance and Eggshell Quality of Broiler Breeders and Laying Hens
Dr. Randy L. Payawal, *Technical Manager,Trouw Nutrition*

Session C: Layer, *Moderator:* **Dr. Jo Vicente Mapa,** *Dip. PCPP*

01:30pm-02:30pm Detection of Multi-disease in Pullets Through Comprehensive Disease Diagnosis
Dr. Dixie Grace E. Mendoza, *Dip. PCPP*

02:30pm-03:30pm Innovation of ILT Vaccine for Prevention and Control -- Preventing Drops in Egg Production
Dr. Roikhwan Soontravanich, MSc, *Technical Manager, Boehringer Ingelheim Animal Health (Thailand)*

03:30pm-04:30pm Efficacy of Different Ionophore-Nicarbazin Combination Products in Coccidiosis Challenge Model
Dr. Nathaniel R. Mendoza, *Technical Manager, Phibro Animal Health (Phils.) Inc.*

04:30pm-05:30pm Building Strong Foundation for Better Egg Production
Engr. Jacky Michard, *Poultry Management and Poultry Nutrition, Adves Sasu, Balaze France, Realvet*

DAY 2

SEPTEMBER 13

Day 2

BREAK OUT SESSIONS

Session A: Broiler, *Moderator:* **Dr. Mark Cuento,** *Dip. PCPP*

08:30am-09:30am Gut Health Insight Technology for Nutrition Design
Dr. Henk Enting, PhD, *Sr. Poultry Technology Lead, Cargill*

09:30am-10:30am Gut Microbiota Modulation for Efficiency in Animal Nutrition.
Dr. Girish Channarayapatna, PhD, *Technical Service Director of Monogastrics Specialty Nutrition APAC, Evonik Animal Nutrition*

10:30 am-11:30am Yeast or *Bacillus subtilis* Fermented Metabolites as In-feed Antibiotic-free Solution: Antimicrobial Peptides
Dr. Chen Peng, *Nutrition Director Of Pig Breeding Division, DBN Technology Corporation, JCS*

11:30 am-12:30pm Biosecurity in Professional Poultry Farms and the Importance of Optimal Drinking Water Quality
Dr. Stefaan Goudezeune, M.A., *Business Unit Director and Drinking Water Specialist, KONAX*

Session B: Broiler Breeder, *Moderator:* **Dr. Karen Olan,** *Dip. PCPP*

08:30am-09:30am Bis-chelated Zinc, Copper and Manganese in Improving Broiler Breeder Performance and profitability
Dr. Dexter C. Amada, *Technical Specialist, Novus International*

09:30am-10:30am Advancing Coccidiosis Vaccination for the Poultry Farmers of Today
Dr. Rodrigo S. Cachuela, Jr., *National Veterinary Services Manager, Ceva Animal Health (Philippines) Inc.*

10:30am-11:30am A Strategic Bacillus-Based Probiotic Platform Can Help to Ameliorate Health Challenges of Broiler and Broiler Breeders Housed Under Commercial Conditions
Dr. Nadim Amarin, *Poultry Business Unit Director for EMEA and APAC, Unahco, Inc.*

11:30am-12:30pm Innovative Blends of Natural Extracts as Solutions for Improved Gut Health in Poultry
Dr. Mojca Osredkar Mergole, MSc, PhD, *Poultry Technical Manager, Silvateam S.p.A, Italy*

Session C: Layer, *Moderator:* **Dr. Kristy Naldo,** *Dip. PCPP*

08:30am-09:30am N-Carbamylglutamate: An Innovative Molecule In Propelling Poultry Production Performance
Dr. Charles Qin, PhD, *Consultant, Canola Council of Canada/Sinagri, Pure Bioscience*

09:30am-10:30am Essential Oils (Eucalyptus and Menthol) Use in Poultry
Dr. Redentor Villanueva, *San Miguel Foods, Imc.*

10:30am-11:30am Case Report: High Mortalities in Avian Hepatitis E Affected Flocks, Poor Growout Results and Farm Wide Egg Production Drop in a Layer Farm, Investigations and Finding Solutions
Dr. Raul Elias Lopez, *Fel. PCPP*

11:30am-12:30pm Effects of Multienzyme Supplementation on the Egg Production Performance and Various Physiological Parameters in 96-week-old Late-Phase Hens Fed a Reduced-Energy Diet
Dr. Royd Joseph R. Mosaso, *Broiler Operations Manager, Luzon Agri Ventures Inc.*

12:30pm-01:30pm **Lunch Break**

AFTERNOON: PLENARY SESSION

Plenary Session, *Moderator:* **Dr. Noel Lumbo,** *PhD, Fel. PCPP*

01:30pm-02:15pm Contemporary Approaches in the Diagnosis of Emerging Poultry Diseases
Dr. Gemerlyn Garcia, PhD, *Professor, CLSU College of Veterinary Science and Medicine*

02:15pm-03:00pm Quantifying Carbon Footprints in Formulating Diets for Sustainable Poultry Feed Production
Dr. Basilisa Reas, *Fel. PCPP*

03:00pm-03:45pm Precision Egg Farming Under Local Conditions
Dr. Renato R. Rollan, *Fel. PCPP*

03:45pm-04:30pm Economies of Solar Power Ventilation
Dr. Christopher Patawaran, *Dip. PCPP*

04:45pm-05:00pm Closing Remarks
Dr. Von Richard Ebron, *Dip. PCPP, Vice President, Chairman, PCPP Poultry School*

05:00pm-05:30pm Raffle

PCPP

Philippine College of Poultry Practitioners, Inc.

HISTORY

A group of extension veterinarians from the different poultry integrators together with some veterinarians working for the animal health companies started organizing themselves to form an association of poultry veterinarians. This was in the late 80's. Several meetings were held but the attendance went on continued decline until nothing was heard anymore.

During the early 90's, another attempt to organize was made, now as the Philippine College of Poultry Practitioners. Most of the extension veterinarians from the poultry integrator companies and some from the animal health companies joined and elected a set of officers. Dr. Edgardo M. Niones was elected as President. Organizational meetings followed but again the loss of attendance lead to its inactivity.

The increasing competitiveness in the profession and the vision to elevate the levels of practice brought about another clamor in late 1998 to organize was again made. Drs. Manny Vistro, Jun Advincula, Rudy Peneyra, Ed Niones, Nonette Belisario, Ben Ferriols, and some other veterinarians including myself met several evenings at the Philippine Animal Health Center (PAHC) formulating ways on how we can finally organize the college. The group agreed to campaign for interested practicing veterinarians in poultry with at least five years of practice to attend regular monthly meetings set every first Friday of the month from 8:00 – 10:00 o'clock in the morning at the PAHC Conference Room. It was indeed a successful campaign and a sound strategy. The poultry veterinarians learned of the set meeting at specific dates and time and they were able to plan properly. The attendance increased from a handful few in May to 54 by December 1999.

The College held its first organizational elections and elected the following as interim officers:

President	***Dr. Alberto R. Villacorte***
Vice President - Internal	***Dr. Cesar F. Policarpio***
Vice President External	***Dr. Joselito A. Limcumpao***
Secretary	***Dr. Arnel A. Amurao***
Treasurer	***Dr. Lina S. Policarpio***
Auditor	***Dr. Renato R. Rollan***
P.R.O.	***Dr. Angel A. B. Mateo***

The Mission, Vision and Objectives of the College was formulated and presented to the general membership for agreement and understanding. At the same time, the committee of Cesar Policarpio drafted the PCPP constitution, which was ratified by the general membership.

With the organizational basics completed and with the members in full understanding of the college's mission, vision, and objectives, the conferment of Diplomate status to the 54 charter members was held during the Feb, 2000 convention of the Philippine Veterinary Medical Association in Bacolod City. The Diplomates used the typical Veterinary Medicine robe of black with gray stripes, red and white hood, and black cap with red tussle. The colors of red and white were so selected to reflect the red comb, and white feathers and eggs of poultry. The formality and solemnity of the exercises were ensured by the presence of the Chairman of the Professional Licensure Board, Dr. Teodulo M. Topacio and the President of the PVMA, Dr. Rhodora S. Carlos.

More poultry veterinarians became interested in joining the college. They learned of the regular meetings on the first Fridays of each month conducted from 8:00 – 10:00 o'clock in the morning. To add value to the meetings and in line with the PCPP objective of enriching each member's knowledge, Dr. Leo Obviar and his technical committee took the first hour of each meeting day for their technical updates and presentations. Members of his committee and other members of the college delivered these presentations. It has always been upheld that while the membership of the college comes from several business organizations, no presentation shall be made commercially nor shall bear brand names.

The membership committee of Dr. Cesar Policarpio decided on the new applicants that ten new Diplomates were conferred In June 2000 during the VPAP convention at the Manila Intercontinental Hotel.

Following the PCPP constitution, which is now in effect, the election of the board was conducted in November 2000. Elected to the board are:

President	***Dr. Alberto R. Villacorte***
Vice President - Internal	***Dr. Lina S. Policarpio***
Vice President - External	***Dr. Robert H. Lo***
Secretary	***Dr. Arnel A. Amurao***
Treasurer	***Dr. Raul O. Olegario***
Auditor	***Dr. Celso E. I. Molina***
P.R.O.	***Dr. Joselito A. Limcumpao***

Meanwhile, the PCPP Special Board, headed by Dr. Roberto N. Santos, together with Drs. Alexander Alipio, and Carmelito Gaddi, established the standards and guidelines for Fellows and reviewed the qualifications of the Diplomates. 34 Candidates for Fellows where conferred together with new Diplomates in May, 2000 during the Third Animal Feeds and Veterinary Drugs Congress in World Trade Center. The membership of the PCPP is now 70.

The College was formally registered with the Securities and Exchange Commission (SEC) on January 31, 2001 under SEC. Reg. No. A200018874. This formalizes the College and provided it a legal entity.

The PCPP members chased its objectives. Dr. Robert H. Lo lead the conduct of the first Poultry School in Pampanga Agricultural College in Magalang on April – May 2001. Together with Dr. Andrew Bernardo and the support of the PCPP members, a three-week classroom and farm training were successfully conducted for the more than 50 junior and graduating students from UPCVM in Los Banos, Aklan State University, G. Araneta University Foundation, Central Luzon State University, Tarlac State University, Virgen Milagrosa University, and Pampanga Agricultural College.

The success of the first Poultry school with undergraduates lead to the second Poultry School held in October 2001 at the Westin Philippine Plaza Hotel. Dr. Joselito A. Limcumpao organized a day-full of lectures on Diagnostics delivered by experts from the academe and practice. This one-day lecture attracted over 160 attendance, which was five times the original plan.

The committee headed by Dr. Renato R. Rollan drafted the Code of Ethics and Practice of the PCPP. The final draft was approved in February 2002 after more than six months of deliberations.

In November 2002, the election of the board for the year 2002 was held. Following the PCPP Constitution and the concept that members of the PCPP are capable leaders and able professionals, the following were elected to the board.

President	***Dr. Daniel A. Rodriguez***
Vice President - Internal	***Dr. Renato R. Rollan***
Vice President - External	***Dr. Paulino Abad***
Secretary	***Dr. Richard Von Ebron***
Treasurer	***Dr. Celso E. I. Molina***
Auditor	***Dr. Arnel A. Amurao***
PRO	***Dr. Lina S. Policarpio***
Immediate Past President	***Dr. Alberto R. Villacorte***

Dr. Limcumpao was appointed as the Dean of the Poultry School. Drs. Roberto N. Santos, Cesar F. Policarpio, and Angel A. B. Mateo were elected to the Specialty Board.

Alberto R. Villacorte, DVM, Fel. PCPP
March 10, 2002

PCPP Fellows

ABAD,
PAULINO C.

ARCA,
ROSETTE ANGELI R.

AGBAYANI,
JOHN GLENN F.

ALDAY, JR.,
ANTOLIANO M.

AMURAO,
ARNEL A.

BUSTAMANTE,
ARNEL A.

CADA,
JULIUS O.

CERVANTES,
GILBERT R.

CONDE,
ELIZABETH C.

CRUZ,
ERWIN JOSEPH S.

CRUZ,
HERMAN, JR. C.

CRUZ,
JOSEFINA B.

DELA CRUZ,
MA. CYNTHIA R.

FERNANDEZ,
ORLANDO R.

FERRIOLS,
RUBEN M.

GADDI,
CARMELITO B.

FELLOWS

LITERATO,
JOY MICHELLE A.

LO,
ROBERT H.

LOPEZ,
RAUL ELIAS C.

LUMBO,
NOEL B.

MANLOLO,
EUSTAQUIO RUEL M.

MANSO,
CORNELIO J.

MATAWARAN,
VERONICA A.

MERCADO,
AGAPITO, JR. F.

MERCADO, EDILBERTO P.

NICOLAS, JR.,
GIL

POLICARPIO,
CEZAR, F.

POLICARPIO,
LINA S.

RODRIGUEZ,
DANIEL A.

ROLLAN,
RENATO R.

ROMANO,
NANCY S.

ROMO,
GENEROSO RENE, JR. M.

FELLOWS

SAN PEDRO,
ESMERALDO B.

SANTOS,
ARTURO V.

TAYAO,
AURELIO G.

TOLENTINO,
DANIEL R.B.

TUAZON,
ALEJANDRO G.

UMANDAL,
MEL C.

VALIENTES,
ROLANDO A.

VILLACORTE,
ALBERTO R.

VILLAROMAN,
JOSEFINO E.

YU, FERNANDO
ROBERT G.

FELLOWS (Not in Photo Gallery)

ALIPIO, ALEXANDER C.
ADVINCULA, CONSTANCIO L..
LIMCUMPAO, JOSELITO A.
OBVIAR, LEO A.
TANGCUNGCO, ANABEL L.
TORRALBA, NEDEÑA C.

FELLOWS (Forever Remembered)

BELISARIO, ANTONIO C.
CONDE, WILFREDO C.
DELA RAMA, EMMANUEL
DE JESUS, NESTOR
GAYARES, BEN T.
GARCIA, JULIANA G.
JOVES, EDUARDO R.
LIBO, REYNALDO N.
MATEO, ANGEL ANTONIO B.
MOLINA, CELSO EULOGIO I.
PUGA, MAXIMO S.
SANTOS, ROBERT

DIPLOMATES

ANORICO,
ARNOLD P.

ATIENZA,
JOSE NICANDRO C.

AWITAN,
ERWIN A.

BALTAZAR,
MARIA MAY S.

BAYAN,
JULIUS CZAR M.

BENIGNO,
SOLOMON, JR. N.

BERNARDO,
ANDREW M.

BOTIAL,
JESSE V.

CAMBA,
SHERWIN I.

CASTRO,
GILBERT G.

CUENTO,
MARK ANDREW N.

DANDAN,
MARIA. LUISA E.

DEL ROSARIO,
SERAFIN B.

EBRON,
VON RICHARD M.

ESTACIO,
JAMIE C.

GUINO,
RICARDO, JR. G.

DIPLOMATES

LARANAS,
ANTONIO AUGUSTUS C.

LIJAUCO,
ED A.

MACALINO,
EVARISTO, JR. U.

MANTUANO,
ROMMEL M.

MALIFICIO,
LEONEL M.

MAPA,
JO VICENTE M.

MENDOZA,
ALENN JAY R.

MENDOZA,
DIXIE GRACE E.

NALDO,|
KRISTY M.

OLAN,
KAREN V.

PATAWARAN,
CHRISTOPHER S.

QUIMIO,
JULIENNE MARIA UNDINE H.

REAS,
BASILISA P.

TOLENTINO,
JOEL P.

UMALI,
DENNIS V.

VILLANUEVA,
JOSE RENDENTOR M.

DIPLOMATES

VILLANUEVA,
KHRISTOFFER C.

VISPERAS,
ROMEO, JR. V.

YABUT,
JOSE MARIA P.

DIPLOMATES (Not in Photo Gallery)

CAJULIS, RODOLFO M.
CASTILLO, EDGARDO S.
CEPEDA, ROBERTO C.
FERANIL, JUN B.
JAMIS, EMMANUEL L.
MARCELLANA, DONOVAN V.
MUJER, JOSE ROY T.
PABALE, FLORENCIO
PABALE, ROWENA
RUBITE, AMBROSIO T.
SAMANIEGO, MARTHA MARIE R.
TAPALES, MARIO SANDY D.
VALCONCHA, NICOMEDES A.

DIPLOMATES (Forever Remembered)

CAJULIS, RODOLFO
FAJARDO, RONNIE
VALCONCHA. NICOMEDES

Philippine College of Poultry Practitioners

OFFICERS 2024

DR. NANCY S. ROMANO
President

DR. VON RICHARD M. EBRON
Vice President

DR. MARK ANDREW N. CUENTO
Secretary

DR. JOSEFINA B. CRUZ
Treasurer

DR. BASILISA P. REAS
Auditor

DR. MARIA MAY S. BALTAZAR
PRO

DR. MEL C. UMANDAL
Technical Affairs

DR. JOHN GLEEN F. AGBAYANI
Membership

DR. ARNEL A BUSTAMENTE
Specialty Board

DR. JO VICENTE M. MAPA
Gov't Affairs Committee

DR. JULIUS CZAR M. BAYAN
Sports & Social Committee

DR. ERWIN JOSEPH S. CRUZ
Animal Welfare Committee

DR. LINA S. POLICARPIO
WVPA Asia Meeting 2023 Chair

DR. GENEROSO RENE M. ROMO, JR.
IPP

Philippine College of Poultry Practitioners

ROSTER OF PAST PRESIDENTS AND FOUNDATION MEMBERS

DR. NANCY S. ROMANO
Current

DR. GENEROSO RENE M. ROMO, JR.
2023

DR. ESMERALDO B. SAN PEDRO
2022

DR. JOY MICHELLE A. LITERATO
2021

DR. CEZAR F. POLICARPIO
2020

DR. RENATO. R. ROLLAN
2019

DR. JOSEFINA B. CRUZ
2018

DR. PAULINO C. ABAD
2017

DR. ERWIN JOSEPH S. CRUZ
2016

DR. RUBEN M. FERRIOLS
2014

DR. RAUL C. OLEGARIO
2013

Philippine College of Poultry Practitioners

ROSTER OF PAST PRESIDENTS AND FOUNDATION MEMBERS

DR. HERMAN C. CRUZ
2012

DR. GILBERT R. CERVANTES
2010-2011

DR. ARNEL A. BUSTAMANTE
2008-2009

DR. DANIEL R.B. TOLENTINO
2007

DR. LINA S. POLICARPIO
2005-2006

DR. PAULINO C. ABAD
2004

DR. RENATO. R. ROLLAN
2003

DR. DANIEL A. RODRIGUEZ
2002

DR. ALBERTO R. VILLACORTE
1999-2001

POULTRY SCHOOL 2023 @ WORK

PCPP - AIPP MOP

PCPP GM Meeting

PVMA Ad Hoc TWG

PCPP Outreach Program

PCPP Flu Vaccine

PCPP Christmas Party 2023

PCPP Summer Outing

FOUNDATION COMMITTEE & BOARD MEETING

MONTHLY TECHNICAL PRESENTATION

PCPP IN GOVERNMENT AFFAIRS

PCPP @ PVMA

PCPP with PVDNA

WITH STAKE HOLDERS IN THE PHILIPPINE POULTRY SHOW 2024

POULTRY SCHOOL COMMITTEE 2024

Chairman

EBRON,
VON RICHARD M.

Executive Chairman

ROMANO,
NANCY S.

School Dean

LUMBO,
NOEL B.

Assistant Deans

CAMBA,
SHERWIN I.

LITERATO,
JOY MICHELLE A.

Finance and Solicitation

REAS,
BASILISA P.

CRUZ,
JOSEFINA B.

ESQUILLO, MILDRED
(DELTAMAN)

Registration

DANDAN,
MARIA. LUISA E.

ESQUILLO, MILDRED
(DELTAMAN)

Technical Committee

BUSTAMANTE,
ARNEL A.

LOPEZ,
RAUL ELIAS C.

UMANDAL,
MEL C.

Event Management and Promotion

BALTAZAR,
MARIA MAY S.

DANDAN,
MARIA. LUISA E.

ESQUILLO, MILDRED
(DELTAMAN)

Souvenir Program

CUENTO,
MARK ANDREW N.

CRUZ,
JOSEFINA B.

BALTAZAR,
MARIA MAY S.

Philippine College of Poultry Practitioners, Inc. (PCPP)

PLATINUM SPONSORS

Alltech

BIOPROTON

APTHEALTH, INC.

CJ BIO

Ceva
Together, beyond animal health

Aviagen | ROSS

Big Dutchman

Boehringer Ingelheim

Cargill

Cbs Bio Platforms

EVONIK
Leading Beyond Chemistry

Interfarma
Nutraceuticals, Inc.
Committed to delivering value

Phibro
ANIMAL HEALTH CORPORATION

SAN MIGUEL FOODS

JCS
JCS Chemical Industries, Inc.

170 Years SILVATEAM

NEZUS

NOVUS

Pure Bioscience Phils. Inc.
"Life Innovation Partner"

REALVET

UNAHCO
Sarimanok
POULTRY FEEDS

trouw nutrition
a Nutreco company

Philippine College of Poultry Practitioners, Inc. (PCPP)

GOLD SPONSORS

CJ FEED&CARE
RICHMADE

NutriBiz CORP.
Animal Health . Business Wealth

SVI
SUPERIORVET, INC.

USSEC
U.S. SOYBEAN EXPORT COUNCIL
USASoy | SOY | United Soybean Board

Vet Specialists, Inc.
Your Expert Caring Partner

Philippine College of Poultry Practitioners, Inc. (PCPP)

SILVER SPONSORS

ALOG & Company, Inc. Established 1982

BioAssets
Nurturing Life, Science and Innovation to Serve the People

Cobb Philippines

EAST ASIA VET
"DELIVERING EXCELLENT PRODUCTS AND TECHNOLOGIES"

HIPRA

INNOVETA Agriventures Inc.

KEMIN
Compelled by Curiosity™

RNSV CORPORATION
Bringing Value and Excellence in Animal Production

SYBEX Animal Health & Nutrition
synergistic solutions simplified

PCPP Poultry School 2024

ABSTRACT

Conquering New Heights: Bridging the Gap Between Production and Consumption

Mr. Francis Uyehara,
President, Philippine Egg Board Association

Egg Innovations, Challenges, and Strategies for Improvements examines the production of eggs from their development to human consumption. Presentation will also address consumer acceptance, quality control, regulatory aspects, cost and risk analyses, and research trends.

The egg will be one of the main protein sources because of the increase in population and purchasing power due to the increasing number of middle class. Also because of the recent demand for good quality protein and cheap protein source and health consciousness of the consumers, egg demand shoots up during the pandemic. Domestic production must thereby increase to cope up with the increasing demand.

The Philippines import 100% from US and Europe of an average of 380,000 PS Layer for the past 10 years. With the recent disruption of shipping in the international market, the supply must be ensured so as not to disrupt the production cycle.

At present, the country is highly dependent on imported PS layers, thus the increase or decrease of import based on available supply will cause abrupt increase or decrease of local day-old chick supply.

The cost of corn which comprised 60% of the feed ingredient is also dependent on the local production of the farmers which are affected by natural occurrence such as typhoons that in recent times saw the drastic effects of climate change. The 2nd main ingredient in the feed formulations is the US soya bean meal which is dependent on the global market price and foreign exchange. The supply of of other raw materials and veterinary harmaceuticals and nutritionals will be affected by disruption of logistics and shipment due to the pandemic.

Diseases such as AI, IBH/FADV and ND poses a major threat to the industry. The recent effect of the African Swine Fever (ASF) to the hog industry in the Philippines saw the

significance of working hand in hand with the government and putting necessary measures in place in terms of prevention and crafting plans on how to strategically update, control and manage the current protection programs in the country.

Seminar Topics:

Focuses on the production and food science aspects of eggs Includes a broad range of microbial contaminants, their risks, and prevention, as well as nonmicrobial contaminant risks Presents analytical techniques for practical application Philippine Layer Egg production dynamics, opportunities and challenges Market trends and consumer demand dynamics Current gaps and bridge programs to guarantee growth

---

Innovating Sustainability in Broiler Genetics

Mr. Dominic John Elfick
Marketing Manager, Aviagen Asia Pacific

Between 1957 and 2001, it was estimated that changes in genetics have accounted for 90% of the performance change in broilers, under identical management conditions. Over that time period broilers grew almost 5 times faster, while requiring less than half the feed to reach an equal weight. This improvement in FCR is estimated to have had a massive impact on the environmental impact of producing broilers. Over the past 20 years, a 2 point improvement in FCR is estimated to reduce the Green House Gas emissions of the broiler industry by 1%. Today breeding programs have many selection traits, but all of these are targeted to improve sustainability, bird health and welfare. By adopting an approach known as “Balanced Breeding”, breeders aim to make moderate gains in all traits on an annual basis, even those that are negatively correlated. This ensures that traits such as growth rate and egg production can be improved each year.

Breeding companies that have not innovated over time have generally not survived the highly competitive market situations face by the industry. Breeding programs now make great use of imaging technology to select for traits, such as meat yield that would have historically required destructive measurement techniques. The advent of genomics has

PCPP Poultry School 2024 ABSTRACT

allowed improved accuracy of genetics estimates, especially in traits that are sex limited or destructive to measure. Companies must increasingly focus on the 3 pillars of sustainability (environmental, social and economic) to ensure that broilers continue to be the meat of choice of many millions around the world. Genetics does not work in isolation from bird management and it is crucial that farmers understand the changing needs of their stock in order to optimize bird health, welfare and performance.

Optimizing Gastro-intestinal Functionality to help tackle Antimicrobial Resistance (AMR)

Rolando A. Valientes, DVM, *Fel. PCPP*

The global poultry meat production continues to grow especially in Asia. One of the main reasons for this is that broilers remain as the most efficient converters of feed. Efficiency requires optimizing gastro-intestinal functionality to help producers maximize the genetic potential of the birds and the viability of their operations.

A challenge which the producers are facing is the drive to reduce the development of antimicrobial resistance. While in the past, farmers relied heavily on AGPs in modulating the intestinal ecosystem, the banning of AGPs in Europe and in some countries in Asia like South Korea, Indonesia and China has intensified the search for alternatives to antibiotics.

Anti-microbial resistance (AMR) is one of the world’s most rapidly emerging public health threats, claiming ~700,000 lives a year and representing a significant economic burden. If this is not addressed urgently and effectively, it is estimated that 10 million people will die due to AMR in 2050. 50-70% of the world’s antibiotics deemed medically important for human health are used in animal farming. There is a strong drive to reduce antibiotic use in livestock production. However, changes are slow and not moving at the same pace across the globe.

Responsible and judicious use of antibiotics to ensure animal health and welfare are pivotal to driving transformational change. Antibiotic growth promoter (AGP) replacement and reduced prophylactic use requires a holistic, responsible approach combining good

husbandry and nutrition, biosecurity and the application of eubiotics.

Eubiotics are defined as non-antibiotic products maintaining the desired balance of the good bacteria and pathogens or “eubiosis” in the digestive tract. Several eubiotics have been introduced in the market with differing modes of action yet achieving the same goal of achieving the desired ratio between the good bacteria and pathogens. We need to provide the producers with alternative nutritional solutions and innovations that meet the needs of consumers and the value chain and enable them to reduce the use of antibiotics in livestock production, thereby, helping tackle antimicrobial resistance or AMR.

The Development and Application of Soluble Yeast Carbohydrates within Antibiotic Free Poultry Production: A Canadian Perspective

Robert Patterson
VP Innovation & Commercialization, CBS Bio Platforms

The use of antibiotic growth promoters (AGPs) in animal feed has raised significant concerns regarding the development of antibiotic-resistant bacteria and their subsequent spread throughout the food production system and to humans, prompting the need for alternative strategies to enhance animal growth and health. Feed additive technologies such as soluble yeast derived carbohydrates has been shown to be a promising solution that leverages a range of mechanistic modes of action that have been proven academically and in practice to replace AGPs. This review examines the foundational science that underpins soluble yeast carbohydrate technology with respect to manufacturing as well as mechanisms of action that underpin observed improvements in feed efficiency and bolstered immunity without the drawbacks associated with AGPs. Within this, real world scenarios with respect to how this novel technology is being applied individually and in concert with other feed additive technologies into commercial antibiotic free poultry production will be provided and contextualized from a Canadian perspective.

PCPP Poultry School 2024 ABSTRACT

Influence of Complexed Trace Mineral Sources on Production Performance and Eggshell Quality of Broiler Breeders and Laying Hens

Dr. Randy L. Payawal
Technical Manager,Trouw Nutrition

Inorganic (INO) trace minerals (TM) are highly water soluble and reactive, affecting the bioavailability of both the TM and their antagonists. More stable organic (OR) and hydroxychloride TM has higher stability and thus bioavailability, however, are more expensive, limiting their widespread usage. Combining organic and hydroxychloride (HO) TM could offer a cost-effective alternative to OR and INO TM in feed. Therefore, a series of experiments were conducted to evaluate the effects of TM source (HO vs OR) in broiler breeders and (HO vs INO) in layer hens on egg production and quality. In the breeder experiment, Ross 708 (n=408, 44 weeks of age, WOA) were fed diets containing 12 ppm copper, 100 ppm manganese, and 100 ppm zinc from either HO or OR sources. In the layer experiment, Hy-line brown (n=160, 60 WOA) were allocated to two dietary treatments as INO with 100 ppm manganese, 80 ppm zinc, and 12 ppm copper supplied in the form of inorganic salts, and HO with 80 ppm manganese, 60 ppm zinc, and 12 ppm copper supplied in the form of organic+hydroxychloride. Production performance and egg quality parameters were measured from 44 to 62 WOA in breeders and from 60 to 100 WOA in layers.

Breeders fed diets containing HO showed no significant differences in all measured production performance, and shell quality compared to OR indicating similar efficacy between TM sources. In layers, HO improved egg production rate (+2.2%), egg mass (+1.3 g/egg), and FCR (-6.6 pts) compared to INO ($P<0.05$). Additionally, eggs produced by hens fed diets with HO had thicker shells than INO treatment ($P < 0.01$).

These studies concluded that HO can effectively replace OR TM in breeders’ nutrition and INO in layers. HO is equally effective as OR and is superior to INO in enhancing production performance and shell quality.

Keywords: trace minerals, egg production, eggshell quality

Optimizing Diagnostic Procedures for Comprehensive Disease Diagnosis in Pullets

Dr. Dixie Grace E. Mendoza, *Dip. PCPP*

Diagnostic procedures in poultry are vital for maintaining flock health and productivity. They enable early detection of diseases, ensuring timely interventions and minimizing losses. Accurate diagnosis allows for appropriate treatment and informed management decisions. Regular health monitoring helps track trends and identify pathogens, improving biosecurity and preventing outbreaks. Ultimately, Compliance with health standards and regulations is facilitated through consistent diagnostics, which also provide economic benefits by reducing treatment costs and optimizing production.

The paper will discuss a disease outbreak in a flock of 13-week-old pullets that initially presented with elevated mortality rates and significant liver lesions, which later progressed having hemorrhagic intestines. Various diagnostic procedures, including necropsy, feed analysis, ELISA, and Polymerase Chain Reaction (PCR) testing, were conducted to narrow down the differential diagnosis. These tests aided in the identification of multiple diseases affecting the flock, enabling the determination of appropriate treatment procedures.

Innovation of ILT Vaccine for Prevention and Control -- Preventing Drops in Egg Production

Dr. Roikhwan Soontravanich, MSc,
Technical Manager, Boehringer Ingelheim Animal Health (Thailand)

Infectious Laryngotracheitis (ILT) is a significant viral disease affecting poultry, leading to respiratory issues, decreased egg production, and increased mortality. This study explores the development and innovation of a new ILT vaccine designed to prevent and control the disease, specifically focusing on preventing drops in egg production. The novel vaccine formulation incorporates advanced adjuvants and delivery mechanisms, enhancing the immune response and providing longer-lasting protection. Field trials conducted on commercial layer flocks demonstrated that the innovative ILT vaccine significantly reduced clinical signs of the disease, maintained stable egg production levels, and minimized economic losses. Additionally, the vaccine showed an improved safety profile, with no adverse reactions observed. This advancement in ILT vaccination represents a critical step forward in protecting poultry health, ensuring sustained productivity, and promoting economic stability in the poultry industry.

PCPP Poultry School 2024 ABSTRACT

Efficacy of Different Ionophore-Nicarbazin Combination Products in Coccidiosis Challenge Model

Dr. Nathaniel R. Mendoza
Technical Manager, Phibro Animal Health (Phils.) Inc.

Coccidiosis, caused by Eimeria parasites, remains a significant challenge in poultry production, leading to substantial economic losses and compromising animal welfare. The need for effective control measures has prompted the exploration of various anticoccidial strategies, including the use of ionophore-nicarbazin combination products. This seminar investigates the efficacy of different ionophore-nicarbazin combinations in combating coccidiosis within a controlled challenge model. By integrating a series of in-vivo trials and laboratory analyses, we compare the performance of multiple ionophore-nicarbazin formulations in preventing and reducing the severity of coccidiosis infections. Key parameters evaluated include growth performance, feed conversion ratios, lesion scores, and oocyst shedding. The seminar highlights the synergistic mechanisms by which ionophores disrupt coccidian cell membranes and nicarbazin interferes with parasite development, enhancing the overall anticoccidial efficacy. Results indicate significant variations in efficacy among the different combinations, with some formulations demonstrating superior performance in reducing clinical symptoms and improving bird health. The discussion also addresses the implications of these findings for resistance management, optimal dosing strategies, and potential side effects. Furthermore, the seminar explores the economic and practical considerations of incorporating ionophore-nicarbazin combinations into poultry production systems, providing insights into cost-benefit analyses and regulatory compliance. Future research directions will be proposed to optimize combination therapies and explore new formulations to enhance the sustainable management of coccidiosis. This

seminar aims to equip poultry producers, veterinarians, and researchers with a comprehensive understanding of the latest advancements in coccidiosis control, fostering informed decision-making and promoting the adoption of effective and sustainable anticoccidial strategies.

Building Strong Foundation for Better Egg Production

Engr. Jacky Michard
Poultry Management and Poultry Nutrition, Adves Sasu, Balaze France, Realvet

With global trends in extending the productive life of layer hens to a very late lay of 90–100 weeks of age there is a need to provide guidance on management and nutritional strategies that sustain hen production, egg quality and health through this longer laying period. This presentation discussed several practical and nutritional strategies during rearing to increase egg production and egg quality during lay: Raw materials quality control, feed formulation, feeding behavior, Gut health & immunity.

The development of the intestinal tract occurs, mainly, during the first weeks of life of the pullets and is vital for the absorption of nutrients and the productive efficiency of the future layer. During this time the skeleton is also under development. The productivity and average egg size of a flock are also influenced by the successful attainment of bodyweight targets and timing of sexual maturity. During first weeks in rearing, management should focus on rapid, uniform and steady chick growth while the second half of the rearing period is the right time to work on developing feed intake capacity, disease resistance and building medullary bone, the calcium reserve for eggshell formation. Efficient egg production relies on audits, real-time monitoring and data analysis. Mixsience has developed the unique App EggoscOpe to assess the risk of deterioration in the egg quality and find the origin of egg quality problem. This is used as a basis for feedback and advices from the expert. Problems such as low egg numbers and poor eggshell quality during lay can often be traced back to problems occurring in the growing period. Back to rearing, best practices of proper feed range, correct feed presentation together with safe and natural feed additives can help producers enhance their egg production.

PCPP Poultry School 2024 ABSTRACT

Gut Health Insight Technology for Nutrition Design

Dr. Henk Enting, PhD, Sr.
Poultry Technology Lead, Cargill

Advances in gut health insight technology are revolutionizing the field of nutrition design, offering unprecedented opportunities to personalize and optimize dietary interventions. This seminar explores the critical role of the gut microbiome in overall health and nutrition, emphasizing the importance of understanding individual microbiome profiles for effective nutrition planning. The integration of cutting-edge technologies such as microbiome sequencing, metabolomics, and bioinformatics enables a comprehensive analysis of gut health, providing actionable insights into the intricate interactions between diet, gut microbiota, and host health. The seminar will delve into the mechanisms through which gut health impacts nutrient absorption, metabolism, and immune function. Participants will learn how to leverage gut health data to create personalized nutrition plans that enhance health outcomes, prevent disease, and improve quality of life. Case studies will demonstrate successful applications of gut health insights in designing targeted nutritional interventions for various health conditions. Key topics include the development and application of these technologies, interpretation of complex data sets, and practical strategies for integrating gut health insights into clinical practice and everyday life. The seminar will also address current challenges, such as data standardization and ethical considerations, and explore future trends in gut health research and its implications for personalized nutrition. By attending this seminar, participants will gain a thorough understanding of how gut health insight technology can be harnessed to design nutrition strategies that are tailored to individual needs, paving the way for a new era of personalized and precision nutrition.

Gut Microbiota Modulation for Efficiency in Animal Nutrition.

Dr. Girish Channarayapatna, PhD
Technical Service Director of Monogastrics Specialty Nutrition APAC, Evonik Animal Nutrition

Efficient production is crucial for the animal industry to meet growing demand for animal protein, despite various challenges. The gut microbiota, a community of microorganisms in the gut, plays a vital role in maintaining poultry performance by influencing animal health and disease susceptibility, as well as supporting host defenses and homeostasis. Although gut microbiota is complex, it can be modulated and responds rapidly to stimuli. Regarding dietary interventions, feed ingredients play a crucial role in shaping the animal microbiome. Modifying feed composition alone can influence gut composition and diversity. A reduced protein, amino acid balanced diet regulates the production of various metabolites, including amines that can cause gut irritation. Frequently used antibiotics significantly alter the normal gut microbial composition, compromising gut health by promoting the growth of antibiotic-resistant bacteria. Phytase enhances digestibility and improves the utilization of previously inaccessible nutrients, thereby influencing ileal and cecal microbiota. Probiotics are live microorganisms that confer health benefits to the host when consumed in adequate amounts. Bacillus amyloliquefaciens CECT 5940 probiotic allowed shifting of microbiome and accelerate the maturation resulting to improved body weight and FCR. Prebiotics are non-digestible food components that selectively promote the growth of beneficial bacteria in the gut. A recent study by Sayed et al. (2023) demonstrated increased Bacteroides and reduced Dehalobacterium, leading to improved mortality and feed conversion ratio (FCR). Phytogenic feed additives, including flavonoids, enhance Lactobacillus and Roseburia populations—beneficial functional microbes that can reduce pathogenic bacteria growth, leading to improved feed intake and efficiency in weanling pigs (Paniagua et al., 2023). Tributyrin, an excellent source of butyric acid for broilers, promotes improved body weight, daily gain, and FCR by favoring the growth of Bacteroides—a key bacterium involved in short-chain fatty acid (SCFA) production (Gong et al., 2021).

In summary, utilizing probiotics, prebiotics, phytogenics, organic acids, and other strategies

PCPP Poultry School 2024 ABSTRACT

can optimize gut microbiota composition and enhance animal productivity and overall health in production systems. In addition, understanding and modulating the gut microbiota hold promise for improving animal health and productivity. As industry needs and challenges evolve, it remains crucial for us to innovate solutions that benefit poultry health and productivity while aligning with the principles of sustainable and responsible poultry production.

Bis-chelated Zinc, Copper and Manganese in Improving Broiler Breeder Performance and profitability

Dr. Dexter C. Amada
Technical Specialist, Novus International

Bis-chelated trace minerals combine methionine analogue (HMTBa) with trace mineral like zinc, copper and manganese in a coordinated covalent bond in two-to-one ratio. Making bis-chelated minerals highly bioavailable form of supplemental zinc, copper and manganese for broiler breeder. Supporting intestinal integrity, pullet uniformity, improving immunity, livability, laying rate and chicks per hen-housed. Aside from providing bioavailable form of zinc, copper and manganese it provides residual methionine value from its HMTBa ligand. For broiler breeders to achieve longevity and performance target – the recommended level of bis-chelated zinc, copper and manganese is 40-10-40ppm and 50-10-60ppm for pullets and breeder hens, respectively. Compared to inorganic and other organic mineral sources it has a lower inclusion rate for the reduce and replace strategy in broiler breeder mineral supplementation while achieving better economic performance. Making bis-chelated minerals more cost-effective in achieving excellent hatching eggs and chick numbers per hen-housed with less environmental impact.

PCPP Poultry School 2024 ABSTRACT

Advancements In Coccidiosis Vaccination To Meet The Needs Of The Poultry Farmer Of Today

Dr. Rodrigo S. Cachuela, Jr.,
National Veterinary Services Manager, Ceva Animal Health (Philippines) Inc.

For decades, coccidiosis remains to be one of the most important diseases of poultry worldwide. In a study done by Williams in 1999, he compartmentalized costs of prophylaxis, treatment and losses due to coccidiosis and came up with 5.2 US cents per bird. Updating the Williams' model, Blake et al. in 2016 stated that losses due to coccidiosis ballooned to around 21 US cents per bird. Thus, the importance of controlling and preventing coccidiosis is much needed more than ever. There has been an evolution in coccidiosis control programs from the discovery of chemical anticoccidials in the 1940s, to the introduction of coccidiosis vaccine in the 1950s, to the establishment of ionophore usage in 1970s and lately, the promotion of alternative and natural products against coccidiosis. Chemicals and ionophores used to be mainstays in coccidiosis prevention and control programs. However, the pressure to remove or decrease anticoccidial usage, especially in areas where it is classified as antibiotics, is becoming tighter than ever. Several animal health companies, poultry housing providers and nutritional companies are investing a lot in developing better vaccines, designing innovative farm structures and finding alternative products to address the increasing challenge of coccidiosis. Vaccines used to play a minimal role in controlling coccidiosis, not to mention it's limited usage in long life birds. But due to the aforementioned reasons, vaccination is now becoming a popular choice across all poultry production systems. Vaccine companies are now focusing on technological advancements in terms of improving production, ease and efficiency of application, better vaccine take, better flock protection and minimal post vaccination reaction, all translating to better profits for producers. Understanding the complex life cycle of coccidia, influence of the environment, mode of transmission, immunity development and monitoring of control programs are all critical in designing an effective control program for coccidiosis.

PCPP Poultry School 2024 ABSTRACT

Innovative Blends of Natural Extracts as Solutions for Improved Gut Health in Poultry

Dr. Mojca Osredkar Mergole, MSc, PhD
Poultry Technical Manager, Silvateam S.p.A, Italy

The poultry industry faces significant challenges, including antibiotic resistance, disease control, and sustainability. The presented paper explores the role of natural plant bioactives—specifically tannins and saponins—in revolutionizing poultry gut health and productivity. Tannins, known for their antimicrobial, antioxidant, and anti-inflammatory properties, enhance nutrient utilization, reduce gut inflammation, and improve litter quality. Saponins, with their antiparasitic and immunostimulating effects, support gut health and bolster immunity. Research demonstrates that these natural extracts effectively modulate gut microbiota, enhance intestinal integrity, and serve as sustainable alternatives to coccidiostatics. Our findings reveal that blends of tannins and saponins not only maintain broiler performance but also improve antioxidant status and gut morphology, offering a promising pathway for sustainable poultry farming.

N-Carbamylglutamate: An Innovative Molecule In Propelling Poultry Production Performance

Dr. Charles Qin, PhD
Consultant, Canola Council of Canada/Sinagri, Pure Bioscience

Arginine is one of the essential amino acids in birds, had been used in the poultry diets to improve meat quality and boost antioxidant defense under normal circumstances. N-Carbamylglutamate (NCG) as a stable activator for endogenous arginine synthesis had been found to enhance arginine concentration, stimulate protein synthesis in skeletal muscle, improve meat quality for broiler, and egg quality for layer.

The supplementation of NCG positively affected eggshell quality by altering endometrial morphology, up-regulating the expression of calcium metabolism-related genes, and influencing the secretion of hormones (Ma et al., 2020a). Moreover, NCG supplementation

effectively stimulated ovarian follicle development by enhancing angiogenesis (Ma et al., 2020b). Adding NCG to layer diet enhanced the production performance and egg quality of layers through the regulation of uterus function (Ma et al., 2023). Consequently, the inclusion of NCG in the diet may lead to positive outcomes in the production performance of layers.

N-carbamylglutamate has emerged as a promising alternative and lead to the production of nitric oxide (NO), a crucial regulator of lipid metabolism by activating hepatic sterol regulatory element-binding protein-2 which elevates the expression of low-density lipoprotein receptors, also related to fatty acid synthesis and β-oxidation. Nevertheless, NCG supplementation modulated liver lipid metabolism and altered liver transcriptome profiles, leading to the production of functional eggs (Liu et al., 2024).

Case Report: High Mortalities in Avian Hepatitis E Affected Flocks, Poor Growout Results and Farm Wide Egg Production Drop in a Layer Farm, Investigations and Finding Solutions

Dr. Raul Elias Lopez, *Fel. PCPP*

In February 2024, a concerted drop in henday was experienced in a multiple age layer farm with as much as 20% drop. All of the 6 layer houses, with age ranging from 52 to 73 weeks had started to drop in egg production all at the same week. Egg sizes had also reduced during the same period. Increased mortality, reduced egg size, unable to stand, delayed onset of egg laying, massive hemorrhage of the intestines, enlarged liver with widespread necrosis were found in layers and growing pullets.

The farm has open sided housing equipped with fans and above roof water sprinklers which automatically run on temperature sensors. Feed is produced by the company's feedmill and is delivered to the farm every 2-3 days in a bulk truck. Feed in each silo is consumed in about 3 days. Feed uses mainly wheat and soya and meat and bone meal.

The farm had been affected in the past with Newcastle disease, Infectious bronchitis, Infectious Laryngotracheitis, Pneumovirus, colibacillosis, Avian Hepatitis E among many others. These diseases have been under control by addressing animal husbandry, Nutrition and by vaccination and strategic medication except for Avian Hepatitis E. AHE does cause mortalities to about 1-3 of flock but does not affect flock henday. Massive hemorrhages of the duodenum also is not a lesion in an AHE affected flock. By experience, AHE affects a flock in about 2-3 weeks and then the disease abates.

In December, cases of AHE had been causing mortalities in 12-18 week pullets leading to 8.5% mortality but has abated by January 2024. By Mid January, pullets from another growout farm in the area had cases of AHE. High vitamin E supplementation was administered to support the immune system. Clostridiasis was suspected as a coinfection and antibiotic medication was administered. Duodenal Coccidiosis was also suspected but treatment was not followed through as mortalities had been reduced with Amoxicillin treatment.

Rearing results were also affected as growth rates had also been affected where birds were found to be not converting the feed and flock weight and weight distribution had variation wider than expected. The rearing farm regularly performs very well with lower than 2% depletion and less than 5% underweight at 16 weeks. Cases of AHE with massive duodenal hemorrhages was observed in mortalities.

Several suspect causes were identified mainly directed to the meat and bone meal in feed to include Mycotoxin levels, Salt levels. Salt was being investigated as farm nutritionist consultant discovered that the salt level was 10 times in the formula list but this was not as practiced. Laboratory results showed low Aflatoxin, T2 toxin levels. Salt tests were elevated.

With decreased henday and poor growing results continue, a decision was reached to remove the suspected meat and bone from the feed and to return to basic wheat and soya diet. Hendays immediately increased and was even higher than the previous results. Growout results improved in terms of weight gain and depletion. With these results, it was concluded that the meat and bone quality had predisposed the AHE affected flocks to have higher severity and had contributed to the big drop in egg production and poor growing results.

Effects of Multienzyme Supplementation on the Egg Production Performance and Various Physiological Parameters in 96-week-old Late-Phase Hens Fed a Reduced-Energy Diet

Dr. Royd Joseph R. Mosaso
Broiler Operations Manager, Luzon Agri Ventures Inc.

The study was conducted to evaluate the effect of reducing feed energy levels with the inclusion of a multienzyme product (Natuzyme™) that is composed of cellulases, xylanases, beta-glucanases, pectinases, alpha-amylase, protease, and phytase. Three hundred twenty-four (n = 324) Dekalb® hens of 96 weeks of age were randomly allotted to one of the three (3) dietary treatments in a completely randomized design (CRD). The diets were: T1 was the basal diet; T2 was the reduced energy (-90 Metabolizable Energy, ME kcal) diet; and T3 was the reduced energy diet plus multienzyme (350 g/ton). Each treatment had 27 cage replicates with 4 active laying hens in each. Production was recorded for 16 weeks, and at the end of the experiment, each of the dietary groups selected 15 heads for blood collection, while 12 heads were sacrificed for gut scoring, histomorphometry, bone quality assessment, and organ weighing. A portion of the ileum was also extracted and analyzed for selected gene expression using rt-qPCR method. After 16 weeks, body weight had no changes among dietary groups ($P > 0.05$). Meanwhile, feed intake was highest in T1 ($P = 0.0102$). T3 was able to be on par with T1 regarding egg production, egg weight, egg mass, and FCR ($P > 0.05$). T3 demonstrated superior albumen height and Haugh unit over T1 and T2 ($P = 0.0033$ and $P = 0.0464$, respectively). The other egg traits with favorable results in T3 include shell width, shell length, albumen weight, yolk weight, and shell weight ($P < 0.05$). Gut histomorphometry showed T1 was the same as T3 regarding villi height and goblet cell density, both at a level of $P > 0.05$. In terms of bone quality, T3 showed the best in terms of bone-breaking strength and porosity ($P = 0.0116$ and $P = 0.0160$, respectively). In blood, platelets were at par for T3 and T1 ($P > 0.05$), while albumin, phosphorus, and MCHC were best for T1 ($P = 0.0023$, 0.0445, and 0.0042, respectively). No significant changes were observed in organ weight except for crop, kidneys, and abdominal fats ($P < 0.05$). In gut scoring, no coccidial lesions (TMLS) were enough for data interpretation, thereby scraping the study, while bacterial scoring (TMBES) was insignificant among the 3 groups ($P > 0.05$). For gene expressions of SLC2A5, CLDN-2, and PMCA1b, there were no differences observed for a significant interpretation ($P > 0.05$). Lastly, in terms of economics, the T3 had the best income over feed cost among the 3 dietary groups, with a 0.14 Php per piece of egg advantage over the standard diet (T1). Therefore, it was found that adding the multienzyme product (350 g/ton) to layer diets despite decreased energy (-90 ME kcal) had no negative effects physiologically, was able to maintain or even outperform against the standard diet (T1) in terms of production performances, had increased bioavailability of minerals such as phosphorus, and upheld gut and bone health as well. Furthermore, the multienzyme product was an economic advantage without sacrificing egg production or quality. In addition to promoting animal welfare through improved bone strength, the product addressed environmental concerns as well via the release of bound minerals in the raw feedstuff.

Keywords: Layers, Multienzyme, Late-Phase, Reduced Energy, Corn-Soybean Meal, Gene Expression

---

Precision Egg Farming Under Local Conditions

Dr. Renato R. Rollan, *Fel. PCPP*

The Philippine egg industry has always been faced with challenges related to production efficiencies. These include the environment in the Philippines, biosecurity issues like disease afflictions, manpower shortage, and downgrades due to handling.

Precision farming focuses on how to mitigate or reduce the effects of hot and humid weather through monitoring sensors to provide ideal conditions in terms of ambient temperature, ventilation and humidity control. Adaptive steps can be taken when extreme conditions prevail.

Precise feeding and watering systems will provide the hen with correct nutrients for body maintenance and egg production

Likewise, the house and farm set up enables the implementation of strict biosecurity measures to reduce the risk of disease afflictions. more quality eggs and lower product

Precise handling of and quality monitoring of eggs will result in less downgrades coupled with less manpower costs.

Overall, precision egg farming will result in more quality eggs and lower production costs.

Economies of Solar Power Ventilation

Dr. Christopher Patawaran, *Dip. PCPP*

We often forget that farmers are into farming because it's a business, a livelihood. And just like in any business model, the motto would always be minimum input, maximum output. For most farms, profitability supersedes care for the animals. They would like to push things to the limit. They overcrowd. They put in more facilities in a cramped limited area. They design beyond the basics to save on costs. Then there will be subpar performances the mediocre profits.

Optimum performances of layer birds are always met if animals have comfortable environments. And having comfortable environments also equates to animal welfare. One of the actions taken to provide comfort especially during summer, is the installation of fans to provide relief from the hot and humid environment. However, providing fans these birds will require a relatively high initial investment. Farmers are hesitant to spend if they do not know how and when to recuperate these expenses, let alone the electricity and maintenance to operate these equipments. Most farmers will agree to initially purchase the fans but electric costs will make them think otherwise. This seminar will give them a bird's eye view on solar energy, it's pros and cons. This will also remind them that the basics of layer management includes a balance of animal welfare and profitability.

TATAK REFAMED CERTIFIED TATAK CERTIFIED

REFAMED

SECURE our farm animals.
Disinfect to PROTECT.

SAUBER PRO

SAUBER SURE

Packaging also includes:
Gallon, Carbouy and Drum

Connect With Us:

BLAINE INDUSTRIAL COMPLEX, GOVERNOR'S DR., CARMONA, CAVITE, PHILIPPINES
TRUNKLINE: +63 2 8539 8541 • WWW.REFAMED.COM.PH | INFO@REFAMED.COM.PH

Interfarma Nutraceuticals, Inc.

ZAMIRA AUSTRALIA

ZAMiGUARD
CLEAN WATER

HOW DOES ZAMiGUARD CLEAN WATER COMPARE?

	CHLORINE	HYDROGEN PEROXIDE	IODINE	ZAMIGUARD CLEAN WATER
Dose rate	High	High	Intermediate	Low
Biocidal activity	Intermediate	Intermediate	Intermediate	Superior
Resistant bacteria, viruses, yeast, fungi & algae	Yes	Yes	Yes	No
Biofilm removal and prevention	Poor	Intermediate	Poor	Superior
pH dependant	High	Intermediate	Intermediate	Low
Corrosive	Yes	Yes	Intermediate	No
Environment	Bad	Superior	Intermediate	Superior

- LIVESTOCK WATER DISINFECTION SYSTEM
- KILLS BACTERIA, VIRUSES, YEAST, FUNGI & ALGAE
- REMOVES & PREVENTS BIOFILM

Elanco

Elanco
POULTRY SOLUTIONS

AviPro®
AVIAN VACCINES

Elanco Narasin + Nicarbazin Maxiban Premix

Elanco Narasin Monteban 100 Premix

Elanco Avilamycin Surmax 100 Premix

Making Life Better For Animals, Makes Life Better

CONTACT ANY ELANCO PERSONNEL or CHANNEL PARTNER FOR MORE DETAILS.

@elancophilippines

Elanco Philippines, Inc. 12F The Podium West Tower 12 ADB Ave. Ortigas Center Mandaluyong City Philippines, 1550 Tel: +63 2.8297.8500 www.elanco.com *PM-PH-24-0171*

Pure Bioscience Phils. Inc.
"Life Innovation Partner"

N-carbamylglutamate [NCG]

Novel feed additive

- Boosts breeder performance
- Helps increase egg production
- Improves egg and meat quality

FeedLock®

Closing the biosecurity gap

- Mitigates viral challenges *
- Increases feed safety
- Sustainable protection
- Enhances performance

agrimprove
we farmideas

* Data on poultry viral diseases available upon request.
Please contact any Pure Bioscience representative for more information

GUTBIO BALANCE

Multi-Strain Probiotic
Performance Enhancer

for Poultry

VRM 18-2931 *(FP)*
VRM 18-2945 *(LS)*

- Boosts Immunity
- Promotes Gut Integrity
- Increases Complete Digestion
- Prevents Wet Droppings
- Improves FCR & ADG
- Optimize Functions of Vitamins and Minerals
- Prevention of Necrotic Enteritis
- Compatible with Antibiotics

for Swine

VRM 18-2930 *(FP)*
VRM 18-2944 *(LS)*

- Boosts Immunity
- Promotes Gut Integrity
- Increases Enzyme Production
- Prevents Piglet Scouring
- Enhances Complete Digestion
- Improves Piglet Uniformity
- Compatible with Antibiotic

BioStar NutriProducts, Inc.

Email us at sales@biostarnpi.com
Call us at 049-521-2448

PACKAGING:

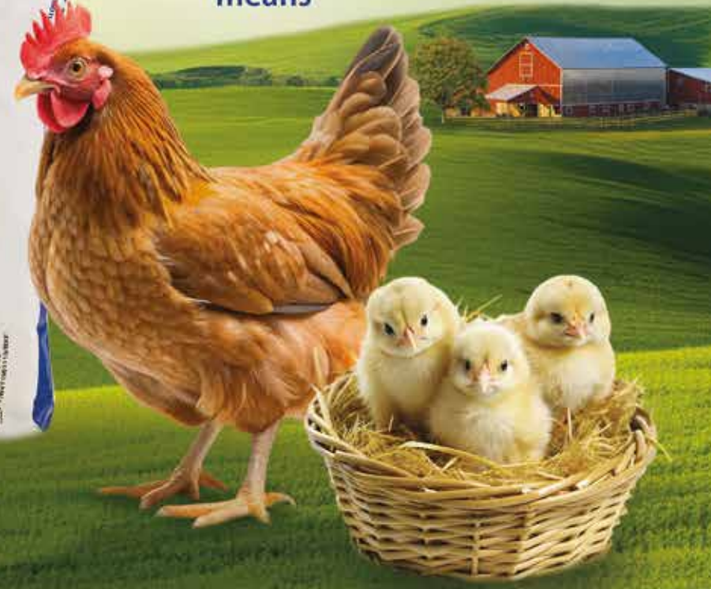
Feed Premix
25 kilos per Bag

Liquid Solution
1 Liter per bottle

GLOBAMAX

Globamax 1000 • Globamax B700 • Globamax Canopy

- Optimize growth and feed conversion rate
- Maximize intestinal villi health to achieve production targets
- Minimize disease risk through antibacterial and anti inflammatory means



global nutrition

Exclusively distributed by

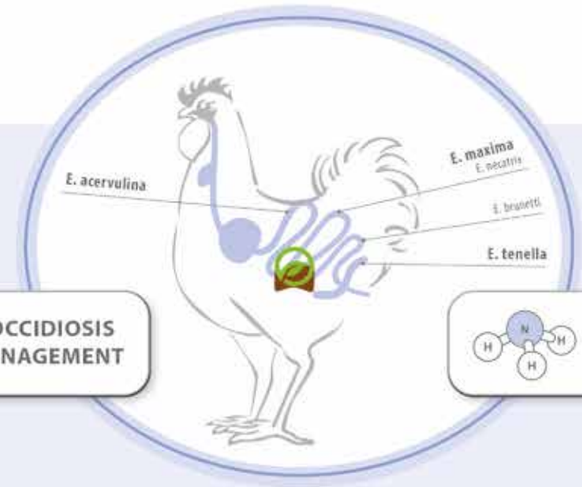
SYBEX ANIMAL HEALTH & NUTRITION

SYBEX Animal Health & Nutrition

(+632) 8672 3050-52
office@sybexahn.com
www.sybexahn.com

Silvafeed®
Just like Nature

We directly manufacture blends of plant bioactives to provide solutions that are healthy and performing for animals, farmers and the planet.



COCCIDIOSIS MANAGEMENT

AMMONIA EMISSIONS

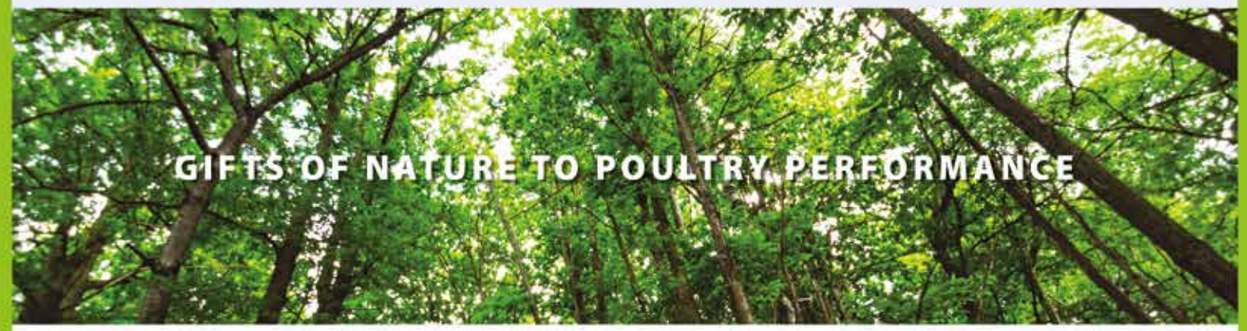
Silvafeed® Nutri A

100% NATURAL PREMIXTURE RICH IN TANNINS AND SAPONINS FOR MONOGASTRICS

KEY BENEFITS:

- Supporting cocci vaccination
- Replacing conventional anticoccidials
- Ammonia and odour emissions reduction
- Anti-inflammatory and antioxidant activities
- Zero withdrawal time, zero side-effects

SUSTAINABLE NATURAL EFFECTIVE SAFE



SILVATEAM
ANIMAL NUTRITION

www.silvateam.com

Not everything is equal with us,

we're *vet*-ter.

Providing you with high quality, innovative, and reasonably-priced animal health and nutrition products in the Philippines.

EQUALIVET
INCORPORATED

(02) 8721 8125 • (+63) 917 895 8950 • info@equalivet.com
18 Betty Go-Belmonte Street corner Rosal Street New Manila, Barangay Mariana, Quezon City, Philippines 1112

vethealth

CARING SINCE 1992

eurofeed technologies S.P.A. GMP+

MPA Veterinary Medicines and Additives

Tyneside Nutrition

VEGA

XIAOTENG 杭州骁腾实业有限公司 HANGZHOU XIAOTENG INDUSTRIES CO., LTD.

Polifar®

VETHEALTH CORPORATION
663 Kamatis St., Tumana, Sta. Maria, Bulacan 3022
Tel. Nos. (+632) 8962-5661 to 62

Vethealth Corporation (official)

30 years of caring vethealth

PRY MARK

WESTERN VETERINARY CORP.

Delivering efficient solutions for animal health.

ORFFA

VEGA

DutchFarm

XIAOTENG
杭州骁腾实业有限公司
HANGZHOU XIAOTENG INDUSTRIES CO., LTD.

Pry Mark Western Veterinary Corporation
326 National Road, Tumana, Sta. Maria, Bulacan 3022
Tel No. (+632) 8364-3076

Inactivated Avian Adenovirus Vaccine

IBH 4/8

KILLED VACCINE FOR INCLUSION BODY HEPATITIS / HYDROPERICARDIUM SYNDROME

- ✓ Inactivated, emulsified bivalent vaccine in mineral oil for the prevention of IBH serotypes 4 and 8b in poultry
- ✓ Homologous antigenicity against serotypes 4 & 8b
- ✓ Maximum protection for flocks
- ✓ For birds of any age

1,2-Diaminoethane

mucosol®

EXPECTORANT

- ✓ Promotes a swift recovery from respiratory diseases
- ✓ Decongests the respiratory tract
- ✓ Can be administered via drinking water or through feeds
- ✓ Can be administered simultaneously with antibiotics
- ✓ No withdrawal period

Contains 1,2-Diaminoethane (stabilized salt of organic iodine)

Manufactured by: Avimex animal health

Imported and Distributed by: COMPANIA J.M., INC.

Main Office: Km 25 MacArthur Highway, Brgy. Lolomboy, Bocaue, Bulacan
Cell no.: +63 917 540 4879
Tel. Nos.: +63 2 8245 3371 / +63 2 8425 3381 / +63 44 815 3825 / +63 44 309 0079 / +63 44 308 3093

facebook.com/CompaniaJMinc
companiajminc@gmail.com

Better nutrition for a sustainable future

Sumitomo Chemical started manufacturing methionine in 1966 and has been steadily expanding the production capacities for 50 over years to meet the growing demand with many years of research on the manufacturing technology. And now, our products are utilized at feed mills and farms in more than 70 countries worldwide. With the increase of DL-Methionine production, we aim to continuously contribute to effective and environmentally friendly livestock production through the stable supply of good-quality products.

...it is all about you

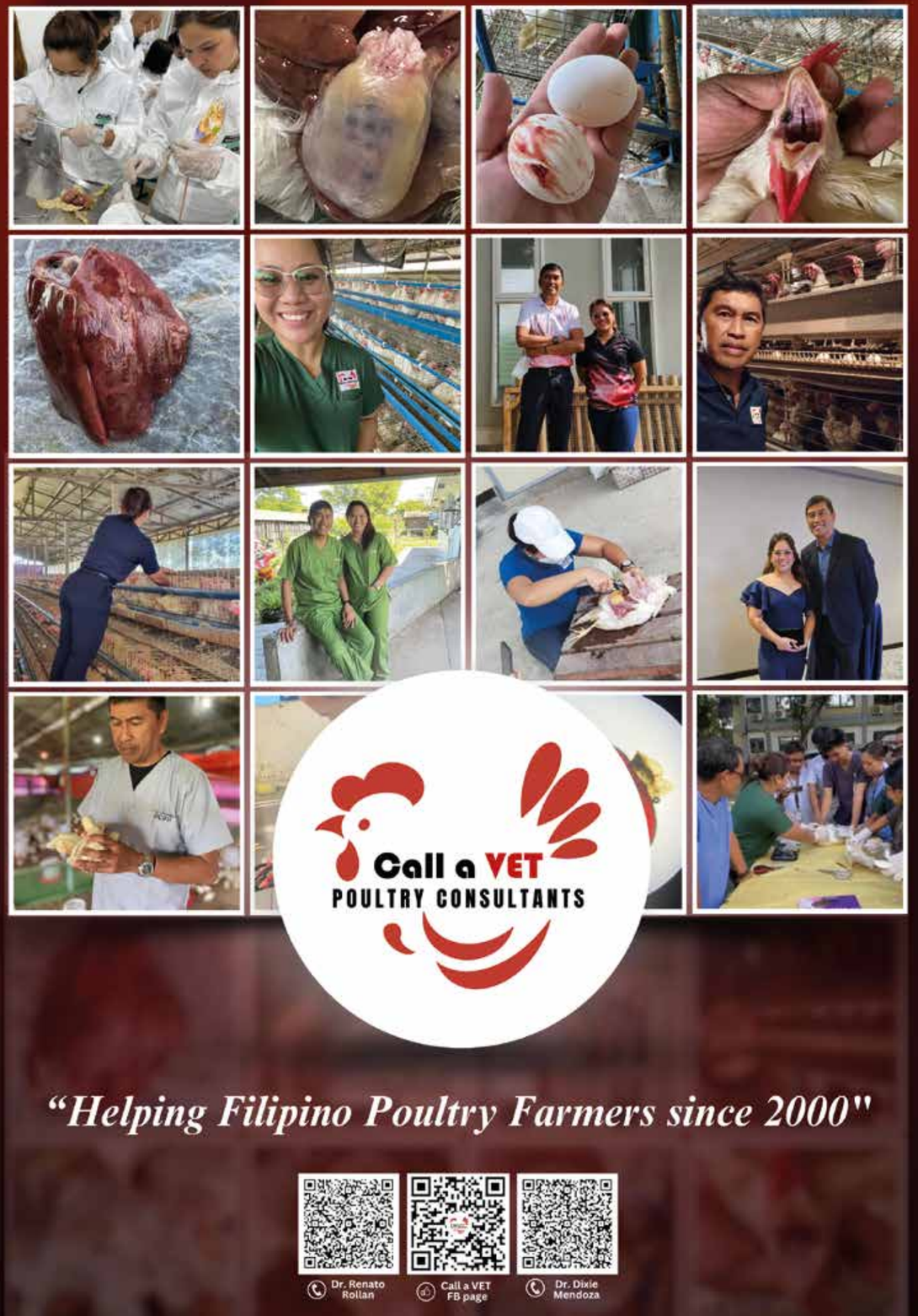
SUMITOMO CHEMICAL
Animal Nutrition

JAPAN HEAD OFFICE:
Animal Nutrition Division
Sumitomo Chemical Co., Ltd.
7-1 Nihonbashi 2-chome, Chuo-ku,
Tokyo 103-6020, Japan
Tel: +81-3-5201-0305
Fax: +81-3-5201-0476
Website: www.sumitomo-chem.co.jp

SINGAPORE OFFICE:
Sumitomo Chemical Asia Pte Ltd
3 Fraser Street
#07-28 DUO Tower
Singapore 189352
Tel: +65-6303-5188
Fax: +65-6298-9621
Website: www.sumitomo-chem.com.sg

PHILIPPINES OFFICE:
Sumitomo Chemical Philippines, Inc.
Unit 4-C, 4th Floor
MAPFRE Insular Corporate Center
1220 Acacia Avenue,
Madrigal Business Park, Ayala Alabang,
Muntinlupa City, 1770 Philippines
Tel: +632-821-4768 **Fax:** +632-821-4741

The EXPERT
in manufacturing
Methionine for feed additive



Natural for any beak.

Leiber Brewers' Yeast – Naturally versatile.

Leiber YeaFi® – Double Power
| Brewers' yeast bound to functional fibre carriers | Top laying performance fibre carriers

CeFi® pro – Armed against stress
| Brewers' yeast autolysate | All-rounder for pullet rearing

Biolex® MB40 – Strong bond
| Yeast cell walls | Animal welfare and optimum fattening performance

Leiber® Beta-S – Highest immune competency
| Highly pure β-glucans | Immune stable parents and vital chicks

We have been upcycling at world-market level since 1954 and keeping the environment and climate in mind.

Leiber GmbH | Franz-Leiber-Str. 1 | 49565 Bramsche
Germany | info@leibergmbh.de

70 Years Leiber
Excellence in Yeast

SUN BIOTECH CORPORATION

Enhancing your Animal's Maximum Performance!
SUNBIO Feed Ingredients and Supplements...

- SUN BIO-888 SOYA PEPTIDE
- BILE ACID / EMULSIFIER
- MILK FLAVOR
- BENZOIC ACID FEED GRADE

AMINO ACIDS

- L-ARGININE
- L-ISOLEUCINE
- L-LYSINE HCL
- L-LYSINE SULFATE
- L-THREONINE
- L-TRYPTOPHAN
- L-VALINE

VITAMINS & MINERALS

- BETAINE HYDROCHLORIDE
- CHOLINE CHLORIDE
- COPPER SULFATE
- MANGANESE SULFATE
- TRIBASIC COPPER CHLORIDE (TBCC)
- ZINC OXIDE

VETERINARY LINES

- BACITRACIN METHYLENE DISALICYLATE (BMD)
- CYROMAZINE PREMIX (NONFLYGON)
- TIAMULIN HYDROGEN FUMARATE
- ZINC BACITRACIN

ENZYMES

- SUNBIO PHYTASE GRANULE
- SUNBIO MANNANASE GRANULE

SUN BIOTECH CORPORATION
1201B 12F Hexagon Corporate Center,
1471 Quezon Avenue, Brgy. West Triangle, Quezon City, Philippines 1104
Telephone: +632-82525167 / Telefax: +632-82525168 Email: sunbio888@sunbiotech.com.ph

TAI CHI

EXPLORE | RESEARCH | SUSTAIN

OUR COMPANY

Tai Chi Newtech Incorporated is an emerging multinational company that pioneers in the Philippines back in 2016. It gradually expands to neighboring Asian countries like Thailand, Vietnam, Bangladesh and continuously aiming for its global presence.

Tai Chi, as its name implies, balances science of nature with cutting-edge product technology to provide value adding and research driven feed ingredients/additives, farm equipment, hatchery equipment and feed mill machineries that would optimize performance parameters of animals.

WE EXPLORE *WE RESEARCH* *WE SUSTAIN*

FEED ADDITIVES

FUNCTIONAL FEED ADDITIVES

1. Antimicrobial Peptides
2. Probiotics
3. Essential Oil Blends
4. Calcium and Sodium Butyrates
5. Glycerol Monolaurate + Tributyrin
6. Coated Benzoic Acid
7. Formic Acid + Organic Acid Blend

Enzymes

1. Xylanase
2. Protease
3. Phytase
4. Multi-enzyme Blends

Feed Emulsifier

Acidifiers

Feed Preservatives

1. Mold Inhibitor
2. Antioxidant

Toxin Binder

1. HSCAS

NUTRITIONAL FEED ADDITIVES

Mineral Blends and Supplements

1. Single Organic Minerals
2. Single Inorganic Minerals
3. Chelated Organic Minerals

Vitamins

1. Vitamin Premix for Swine and Poultry
2. Coated Vitamin C (98%)
3. 25-Hydroxy Vitamin D3 Compound

Premixes

1. Vitamins, Minerals and Amino Acids Premixes for Broiler, Sow and Piglets

SPECIALTY

1. Yeast Nucleotides
2. Functional Protein
3. Omega-3 Fatty Acids

COMMODITY

1. MDCP
2. Choline Chloride 60%
3. Betaine HCL 98%

AGRO MACHINES

POULTRY FARM EQUIPMENT

Poultry House Climate Control System
Ventilation System
Spray Humidifier
Lighting System
Broiler Cage Equipment
Floor Type Broiler Equipment

HATCHERY EQUIPMENT

Single-Stage Incubator
Multi-Stage Incubator
Vaccine Incubation Equipment
Hatchery Climate Control
Information Management System
Automation Equipment
Hatchery Auxiliary Projects

FEED MACHINERY

- Processing Equipment
- Pellet Mill Series
- Conditioner Series
- Stabilizer Series
- Extruder Series
- Pulverizer Series
- Dryer Series
- Unstacker Series
- Hammer Mill Series
- Mixer Series
- Cooler Series
- Crumbler Series
- Rotary Sifter
- Packing Scale
- Cleaning Machine
- Auxiliary Equipment

- Swine/Poultry Feed Mill Project
- Aqua Feed Mill Project
- Premix Process Mill Project
- Complete Turn-Key Project Cases
- Storage Project
- Electrical Control System
- Spare Parts

TAI CHI

TAI CHI NEW TECH INC.
Office Center 05K Berthaphil Clark Center,
Clark Freeport Zone, Pampanga, Philippines

(045) 499 - 8508
(045) 499 - 8494
feedback@taichinewtech.com
www.taichinewtech.com

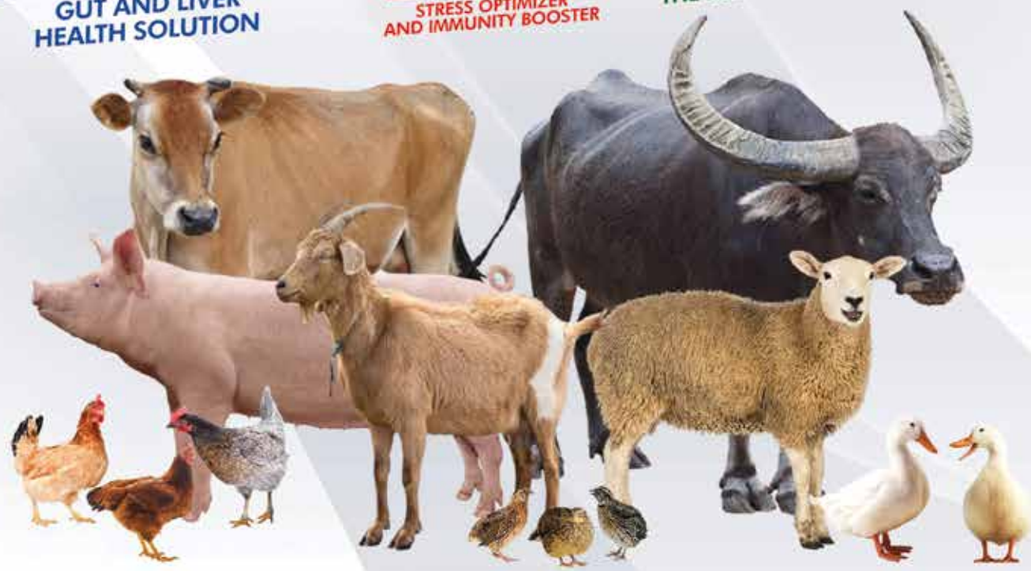
EAST ASIA VET
"DELIVERING EXCELLENT PRODUCTS AND TECHNOLOGIES"

FARMCHAMP
PARA SA MAHUSAY AT MABAGAKMANG PAGHAHAYUPAN

ZIGBIR
GUT AND LIVER HEALTH SOLUTION

ZIST
STRESS OPTIMIZER AND IMMUNITY BOOSTER

RESPEASE
THE RESILIENT RESPIRATORY SOLUTION



Blk 17 Lot 11 Saint Matthews Street, Marvi Hills Subdivision, Barangay Guiod Malaya, San Mateo, Rizal
Tel No: (02)8948-3629 • https://www.facebook.com/eastasiavet
CONTACT PERSON: DR. ROLLIE O. ENCARNACION JR. • +639156798140


Fresh
Options
MEATSHOP
Fresh from our farms
to your home
Export Quality Seal
bsi
FSSC
22000
Food Safety System
Certification
CERTIFIED
"AAA"
ACCREDITED
NMIS
CERTIFIED
HACCP
CERTIFIED
GMP
rdf
freshoptions.ph
freshoptions