

THE MAGAZINE OF INDIAN POULTRY INDUSTRY | JULY 2026



COVER

THE GROUND TRUTH

ARTICLE

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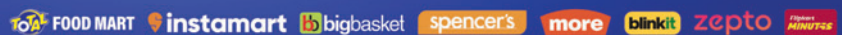


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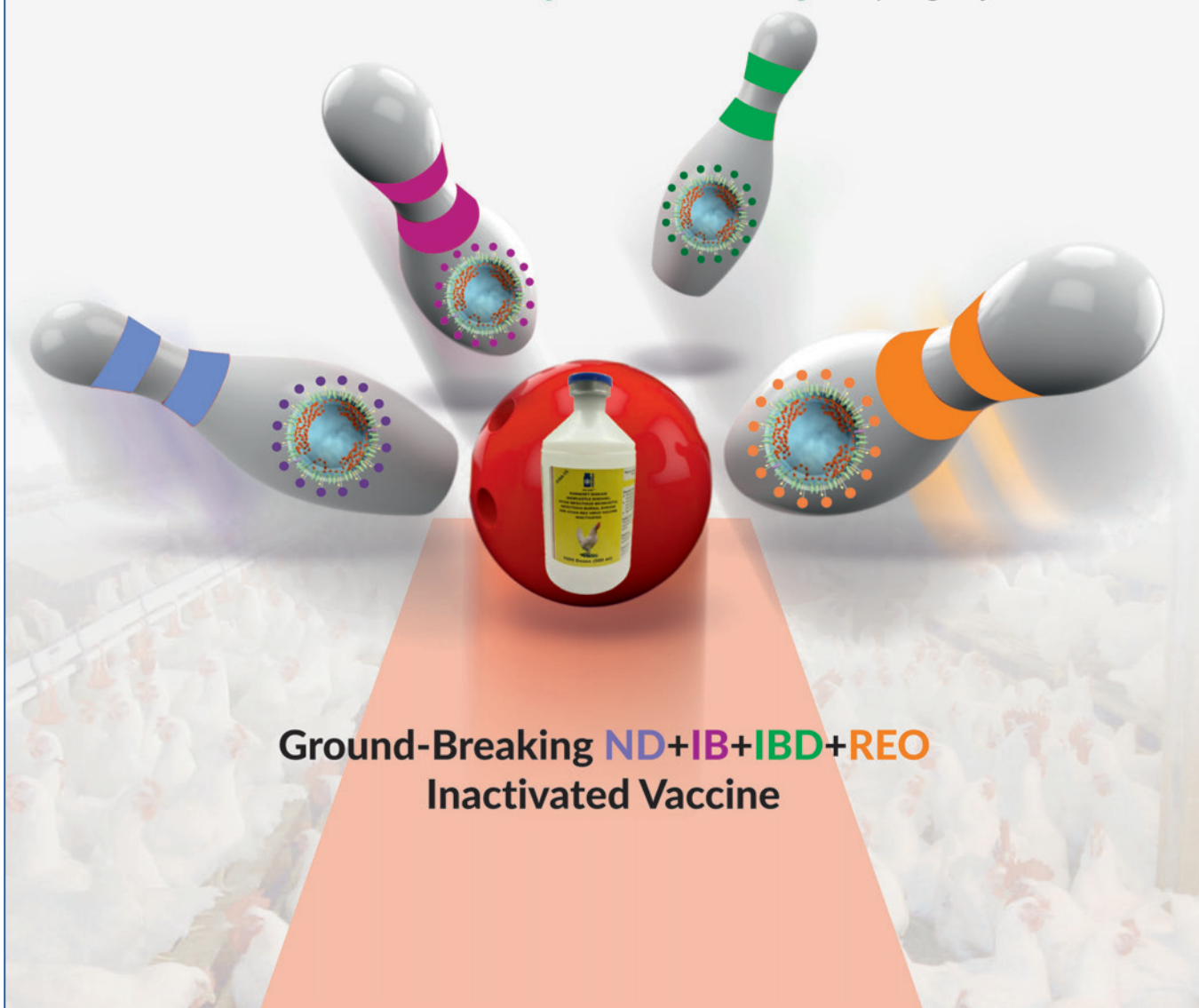
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AVIAN INFLUENZA PREPAREDNESS: IS INDIA READY FOR THE NEXT PHASE?



G. N. Ghosh
Managing Editor

India's approach to Highly Pathogenic Avian Influenza (HPAI) is entering a new phase. The Department of Animal Husbandry & Dairying's (DAHD) recent decision to establish a regulatory framework for evaluating and approving HPAI vaccines marks an important step towards a more proactive and structured disease-control strategy. It reflects a growing recognition that preparedness must keep pace with an increasingly complex and evolving disease landscape.

Yet, vaccines are only one part of the solution. They cannot substitute for strong biosecurity, continuous surveillance, rapid diagnostics, or transparent disease reporting. True preparedness rests on a layered defence system in which every stakeholder—from breeder farms and hatcheries to commercial producers, veterinarians and backyard poultry keepers—plays an active role.

The Indian poultry industry has shown remarkable resilience in overcoming past disease challenges. But rising poultry densities, expanding trade, migratory bird movements and the growing impact of climate change call for a more coordinated, science-based response. Strengthening laboratory networks, investing in digital surveillance, enhancing farmer awareness and improving emergency response capabilities should now be national priorities.

Preparedness is not something that begins when an outbreak occurs; it is a commitment that must be sustained every day. The new vaccine framework is a welcome milestone, but its real value will be measured by how effectively it is implemented and integrated with robust disease prevention measures.

As India prepares for the next phase in the fight against avian influenza, success will depend not only on scientific advances but also on collective responsibility. Vigilance, collaboration and unwavering commitment will be the cornerstones of safeguarding one of the country's most important agricultural sector.

Research Abroad

New Research Suggests Cleaning Before Disinfecting Increases Biosecurity

A new research from a Texas A&M College of Agriculture and Life Sciences doctoral graduates could help producers better protect poultry flocks from disease outbreaks while reducing costs.

Lindsey Wythe, who recently defended her doctoral thesis in the Texas A&M Department of Poultry Science, published three studies this year examining how biosecurity practices perform under real-world farm conditions. The work was conducted in the laboratory of Morgan Farnell, Ph.D., Professor, Associate Department Head and Texas A&M AgriLife Extension Service program leader for avian microbiology and immunology.

Wythe's research comes as the poultry industry continues to battle Highly Pathogenic Avian Influenza, HPAI, which has led to the loss of millions of birds nationwide and contributed to volatile egg and poultry prices.

Following graduation, Wythe will continue the work as a postdoctoral researcher in Farnell's lab, studying campylobacter isolates that cause spotty liver disease in layer hens and foodborne illness in humans.

"Dr. Wythe's research bridges the gap between theory and practice, giving poultry stakeholders clear, actionable guidance on developing and adhering to real-world biosecurity programs," Farnell said.

Testing biosecurity in real-world conditions

Biosecurity refers to practices that prevent disease from entering or spreading within farms, such as controlling movement of people and vehicles and disinfecting equipment and footwear.

Wythe's research focused on testing the efficiency of on-farm measures to keep pathogens out of poultry operations and limit spread through routine farm contact points.

"One of the big gaps we saw was that disinfectants are typically tested under ideal laboratory conditions," Wythe said. "But those conditions don't reflect what's actually happening on farms."

Farm environments often include dust, litter and manure, which can reduce disinfectant effectiveness. Workers also face time constraints that make strict protocols difficult to follow.

Her research asked a practical question: Do these measures still work under less-than-ideal conditions?

Mapping contamination across the farm

One study mapped where microbes accumulate throughout poultry operations. Researchers sampled high-contact surfaces, vehicles, air, dust and cooling systems inside broiler barns.

They identified consistent hotspots for contamination, including door knobs, floor mats, vehicle tires, ventilation inlets and evaporative cooling reservoirs. These areas can act as pathways for disease spread if not properly managed.

The study also evaluated common interventions such as boot covers, footbaths and tire washes under realistic conditions. Results showed boot covers reduce contamination but do not eliminate it, especially when boots were not cleaned beforehand.

Footbaths and tire washes proved more effective when surfaces were cleaned first and disinfectants were given enough time to work.

Wythe said surfaces must first be clean for disinfectants to work effectively, and users should follow the recommended 10-minute contact time whenever possible.

The findings highlight the importance of targeting high-risk areas and combining multiple steps rather than relying on a single barrier.

Powdered disinfectants show promise

A second study focused on disinfecting footwear using powdered products in foot pans at entry points. Wythe found the formulations significantly reduced microbial contamination, even with short contact times and in the presence of organic material.

"I expected there might be a clear winner among the products or that shorter contact times wouldn't be effective," she said. "Instead, we saw consistent reductions across the board."

Wythe said powdered disinfectants showed cost advantages. Liquid products often require frequent replacement, while powders remain effective longer in dirty conditions and may reduce both labor and supply costs.

Real-world behaviour still matters

The research also points to a persistent challenge: human behavior. Workers may skip steps such as thoroughly cleaning boots before disinfection because of time pressures.

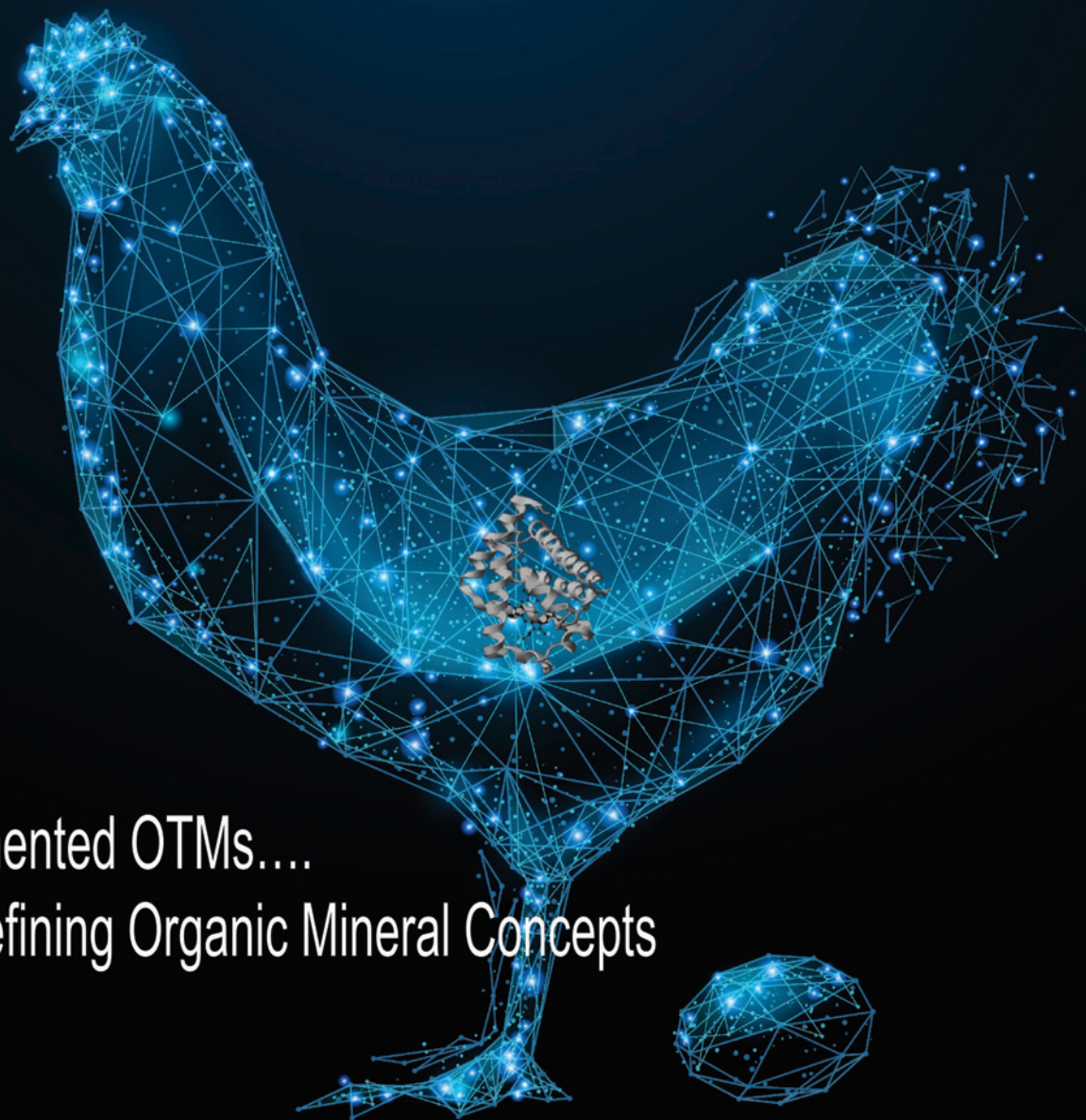
"There's a human element to biosecurity," Wythe said. "People are busy and trying to get through their day."

Even so, the studies show that partial compliance can still reduce risk. Stepping through a foot pan without fully clean boots is less effective but still beneficial.

Implications for producers and consumers

Outbreaks of avian influenza can lead to complete flock losses for producers. Major regional outbreaks can disrupt supplies and lead to higher prices.

Wythe's findings show that practical, affordable measures can reduce disease spread when applied consistently and strategically. By identifying where contamination occurs and how to interrupt those pathways, the research helps move biosecurity from theory to action, offering tools that can protect animal health and support a more stable food supply.



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Nutritional and Metabolic Disorders of Poultry: How to Solve It?

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Abstract

Poultry production is a vital pillar of global food security, yet it is frequently challenged by nutritional and metabolic disorders that compromise animal welfare and productivity. This article provides a scientific yet accessible overview of at least ten key nutritional and metabolic diseases affecting poultry. Each disorder is examined with respect to its etiology, clinical manifestations, and practical management strategies. The discussion is framed in a way that relates the physiological impact to real-life poultry management, aiming to bridge the gap between rigorous science and daily farm realities.

Introduction

As the demand for poultry products continues to rise, the pressure on producers to maximise bird health and productivity has intensified. Nutritional and metabolic disorders represent a significant hurdle, often manifesting subtly before progressing to severe clinical outcomes. These disorders not only reduce economic efficiency but also raise ethical concerns regarding animal care. Understanding these conditions from both a scientific and a practical, human-centered viewpoint is crucial for sustainable poultry farming (Leeson & Summers, 2001).

Detailed Discussion of Nutritional and Metabolic Disorders of Poultry

Below are some of the most impactful nutritional and metabolic disorders encountered in commercial poultry operations:

1. Rickets (Vitamin D3, Calcium, or Phosphorus Deficiency)

Etiology:

Rickets is primarily caused by deficiencies or imbalances in vitamin D3, calcium, and phosphorus. Vitamin D3 is essential for calcium and phosphorus absorption in the intestines. Inadequate sunlight exposure, poor-quality feed, or improper supplementation can all contribute.

Clinical Manifestations: Affected birds exhibit soft, pliable bones, enlarged joints, and bowed legs. Chicks may be reluctant to move, show lameness, or lie down frequently. Eggshell quality is also compromised in layers.

Impact:

Growth retardation and skeletal deformities can lead to culling, increased mortality, and welfare concerns. Think of a child with bowed legs and difficulty walking—similarly, rickets-affected chicks struggle just to stand.

Management:

- Ensure proper levels of vitamin D3, calcium, and phosphorus in diets
- Provide access to natural sunlight or artificial UV light
- Supplement with bone meal, limestone, or commercial vitamin-mineral premixes

2. Tibial Dyschondroplasia

Etiology:

This disorder stems from improper cartilage development at the end of long bones, often linked to rapid growth rates, genetic predisposition, and mineral imbalances (especially calcium and phosphorus).

Clinical Manifestations: Birds develop swollen hocks, bowed legs, and an inability to walk properly. Many spend more time sitting, leading to breast blisters.

Impact:

Heavily impacts broilers bred for fast growth. The condition is similar to a growing child with joint pain and mobility issues.

Management:

- Balance calcium and phosphorus ratios
- Control energy content to prevent overly rapid growth
- Select breeding stock with lower predisposition to skeletal disorders

3. Fatty Liver Hemorrhagic Syndrome (FLHS)

Etiology:

FLHS results from excessive energy intake, low choline/methionine, and stress. Over-conditioned hens develop fat-laden, fragile livers prone to rupture and hemorrhage.

Clinical Manifestations: Sudden death in apparently healthy laying hens, pale combs, and abdominal fat accumulation. On necropsy, the liver is enlarged, soft, and hemorrhagic.

Impact:

FLHS can cause significant losses in commercial layer operations, often surprising caretakers due to sudden, unexplained deaths.

Management:

- Avoid overfeeding energy-rich diets
- Provide adequate choline and methionine
- Minimize stressors like overcrowding and excessive heat

4. Ascites (Pulmonary Hypertension Syndrome)

Etiology:

Ascites is driven by high oxygen demands in rapidly growing broilers, leading to right heart failure and fluid accumulation in the abdomen. Poor ventilation and high salt diets exacerbate risk.

Clinical Manifestations: Birds exhibit laboured breathing, swollen abdomens, and cyanosis (bluish combs). On post-mortem, clear fluid fills the abdominal cavity.

Impact:

Ascites reduces performance and causes economic loss. It's comparable to congestive heart failure in humans—with birds gasping for air and unable to move comfortably.

Management:

- Reduce growth rates by adjusting feed energy
- Improve house ventilation
- Avoid excessive dietary salt

5. Gout (Visceral and Articular)

Etiology:

Gout develops when uric acid is not excreted efficiently, often due to dehydration, excessive protein intake, or kidney dysfunction.

Clinical Manifestations: Visceral gout: chalky white urate deposits on organs.

Articular gout: swollen joints, lameness, and reluctance to move.

Impact:

Birds may become immobile, similar to a person with severe joint pain. Mortality can be high if underlying causes persist.

Management:

- Maintain clean, ample water supply
- Avoid overly high protein levels
- Address nephrotoxic agents and ensure proper kidney function

6. Perosis (Slipped Tendon)

Etiology:

Perosis arises from deficiencies in manganese, choline, biotin, or niacin, which are vital for cartilage and tendon development.

Clinical Manifestations: Chicks show enlarged hock joints, twisted leg bones, and slipped gastrocnemius tendon, causing a “penguin-like” stance.

Impact:

Leads to permanent deformity and culling. Comparable to developmental joint issues in children, it is distressing for caregivers.

Management:

- Supplement breeder and starter feeds with required micronutrients
- Monitor feed quality and storage

7. Encephalomalacia (Crazy Chick Disease)

Etiology:

Caused by vitamin E or selenium deficiency, leading to oxidative damage in the brain.

Clinical Manifestations: Chicks display incoordination, ataxia, paralysis, and eventually die if untreated. Twisting of the neck (opisthotonos) is characteristic.

Impact:

Outbreaks can devastate young flocks. The symptoms are as distressing to observe as neurological disorders in children.

Management:

- Ensure adequate vitamin E and selenium in diets
- Store feed away from heat and moisture to prevent nutrient degradation

8. Exudative Diathesis

Etiology:

Also caused by vitamin E and/or selenium deficiency, leading to increased capillary permeability and fluid leakage.

Clinical Manifestations: Swelling and gelatinous fluid under the skin, especially in the breast and abdomen, are noted.

Impact:

Chicks appear waterlogged and lethargic. Caretakers may notice the birds are “puffy” and weak.

Management:

- Supplement with vitamin E and selenium
- Maintain feed freshness to prevent oxidation of fats

9. Hypovitaminosis A

Etiology:

Deficiency of vitamin A due to poor-quality feed or insufficient supplementation.

Clinical Manifestations: Birds develop swollen eyelids, nasal discharge, white plaques in the mouth, and poor feathering. Egg production and hatchability decline.

Impact:

Respiratory distress and eye lesions are evident, much like a child with conjunctivitis and a cold.

Management:

- Supplement vitamin A, especially for breeders and chicks
- Use stabilized vitamin A sources in feed

10. Iron Storage Disease

Etiology:

Occurs when birds, especially genetically susceptible lines, consume diets excessively high in iron, leading to toxic liver accumulation.

Clinical Manifestations: Usually presents as sudden death with enlarged, bronze-colored livers on necropsy.

Impact:

Often goes unnoticed until mortality rises. Analogous to hemochromatosis in humans.

Management:

- Regularly analyze feed mineral content
- Avoid unnecessary iron supplementation

Conclusion

Nutritional and metabolic disorders in poultry are not only scientific challenges but also human stories of care, observation, and responsibility. Early detection through vigilant management and scientifically informed nutrition can prevent most disorders. Producers, veterinarians, and nutritionists must work collaboratively, always remembering the real lives—both avian and human—affected by these diseases.

Recommendations

1. Regular feed analysis to ensure balanced rations for all production stages.
2. Staff training in early detection of health issues and humane responses.
3. Implementation of biosecurity and stress reduction protocols.
4. Collaboration with poultry nutritionists and veterinarians for ongoing support.
5. Adoption of record keeping for tracking and improving flock health outcomes.

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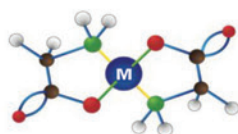




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Intrinsic Heat Stability of a Phytase

Technical Team
Huvepharma SEA

Summary

The biochemical characterisation of a phytase such as pH profile, pepsin resistance, speed and affinity can provide information on the potential efficacy of the phytase in vivo. The focus on improvement of the intrinsic heat stability has been driven by the market and forms part of the selection criteria.

Introduction

Exogenous added phytase in feed is already in practice for more than 25 years. It is used to liberate phosphorous (P), bound to phytate present in raw materials, lowering the feed cost by reducing the amount of added inorganic P and to degrade the concentration of phytate, a well-known anti-nutritional factor. At the same time, environmental sustainability is improved, as P excretion in the environment is reduced. Also, the awareness grows that the sources of inorganic P are not inexhaustible. As different phytases are commercially available, it is important to understand which criteria are important to make a good choice.

pH Profile and Pepsin Resistance of the Phytase

These criteria have already been used for a long time as a first quick screening of phytases. It is common knowledge that phytate must be in solution to allow the exogenous phytase to hydrolyse its phosphate groups. Phytate is largely soluble at pH levels below 4.0 (gizzard) while at higher pH levels it forms complexes with positively charged ions and amino acids, making it insoluble and unavailable for hydrolysis by phytase. Therefore, a phytase with a high activity throughout the complete acid pH range from pH 2 to 4 has shown to be superior. As phytases work in the gizzard, screening for a phytase which is not prone to degradation by pepsin is also an important parameter to consider.



Speed of Phytate Hydrolysis and Affinity for Phytate

A key criterion for selection is speed of phytate hydrolysis. The aim is to have a maximal speed so that quick degradation of phytate is achieved. This is not only providing a high P release in short time, but the destruction of phytate also leads to the release of micro-minerals and proteins (amino acids) complexed by it, enhancing their digestibility. This maximal speed (V_{max}) is determined in so-called Michaelis Menten kinetic studies, in which in vitro the speed of phytate degradation is measured with increasing levels of phytate (Fig. 1). However, as indicated in Fig. 1, two phytases having a similar V_{max} , can have lower speed of action when phytate levels decrease due to phytase action. This is due to a difference in affinity (K_m) of the phytase for phytate. The affinity, defined as the concentration of phytate at which the speed of its degradation equals half of its maximal speed, indicates how long this high speed can be maintained when the phytate concentration is decreasing. A low K_m (so a high affinity) gives a benefit to a phytase as it will lead to a prolonged high speed of phytate degradation, and thus to a higher P matrix value as from in vivo measurement can be expected. Translating this into a practical situation: when birds consume feed, the initial phytate level will drop during hydrolysis in the gizzard, and so will also the speed of phytate degradation. A phytase with higher affinity (lower K_m) will be able to keep the high speed of phytate degradation up for a longer time, and will thereby give a higher P matrix value.

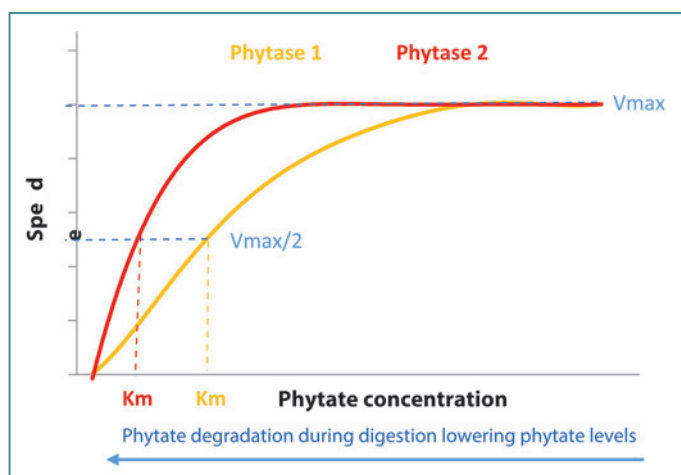


Fig. 1: The speed of phytate degradation by 2 phytases showing equal maximal speed (V_{max}) but a different affinity (K_m) for phytate

Striving for an Intrinsic Heat Stable Phytase

The first phytases commercialised 20-30 years ago were rather heat sensitive during pelleting, even when coated, requiring the

post pellet liquid application (PPLA) of phytases. Next to the cost of installation, the risk of malfunctioning lurked around the corner requiring a high level of maintenance and quality control, which is a burden to the feed mill manager and technician.

In that perspective, the intrinsic heat stability of a phytase has gained interest. An increase in intrinsic heat stability that allows pelleting to at least up to 85°C was reassuring thermostability under normal pelleting conditions. When, by a coating technique, the thermostability could be increased to 90°C (or even 95°C), an alternative to the application of liquid phytases through PPLA is realised.

In the period 2017-2020, plural pelleting trials in Europe (at 5 different trial locations) and in the USA (at 5 different trial locations) were conducted to assess the heat stability of a newly developed intrinsic heat stable phytase, either uncoated (granular) as well as the coated version. It was chosen to run these trials in different trial locations, so that the phytase were tested under a wide variety of different pelleting conditions (including impacting factors like equipment, feed composition, speed of cooling and others). As the universal definition of stability states that “stability is achieved when recovery of the active substance is > 80 % of the original value”, it can be seen that the newly developed phytase can claim an intrinsic heat stability at 85°C (Fig. 2) when applied in the granular form (C), while it’s coated version (CT) can stand pelleting temperatures up to 90°C, and even 95°C with acceptable (25%) losses of activity (Fig. 2).

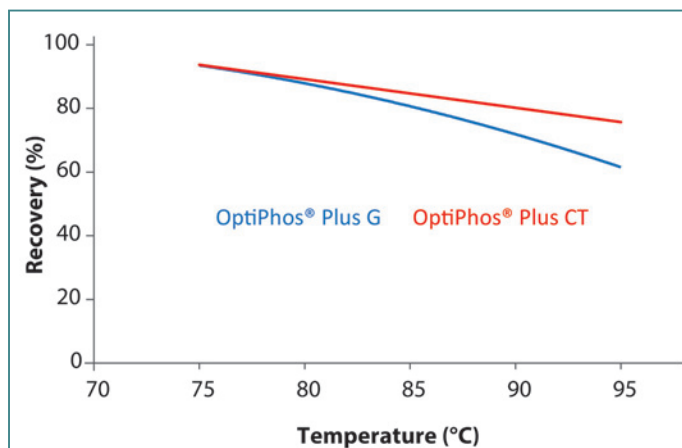


Fig. 2: Average recovery of pelleting studies ran with a granular and coated intrinsic heat stable phytase (2017 to 2020, EU and the USA data)

Conclusion

Next to the screening for optimal biochemical characteristics of a phytase like pH profile, pepsin resistance and speed/affinity, the intrinsic heat stability has become a prerequisite for a phytase, allowing it to reach a heat stability till 85°C, and even up to 95°C when appropriately coated.



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Dr. Maloshrie Bora
Senior Program Manager
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Across India and South Asia, feed manufacturers today face a common challenge: producing safe, stable, high-quality feed while navigating increasingly variable climate conditions, fluctuating raw material quality, rising production costs, and greater demands for feed efficiency.

Among the many factors that influence feed quality, moisture management remains one of the most underestimated. Yet moisture directly impacts pellet quality, nutrient preservation, feed hygiene, shelf life, production throughput, and overall profitability. Improper moisture management can result in shrinkage, spoilage, mould proliferation, nutrient losses, increased fines, and reduced mill efficiency. Conversely, optimised moisture control can generate significant economic returns while improving feed quality throughout the supply chain.

The Hidden Economics of Moisture Loss

During feed manufacturing, moisture is lost at several stages, including grinding, conditioning, pelleting, cooling, storage, and transportation. Industry observations indicate that feed mills can lose between 0.5% and 1.5% moisture during production, resulting in direct shrinkage and reduced profitability. A feed mill producing 500 tonnes per day can lose approximately 5 tonnes of saleable product for every 1% moisture reduction. In an industry where margins are constantly under pressure, minimising process losses represents a substantial opportunity for value creation.

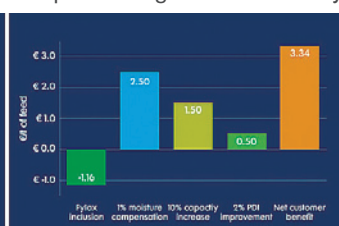
Why Adding Water Alone Does Not Solve the Problem

A common industry practice for compensating moisture losses is the addition of water during feed processing. While this may

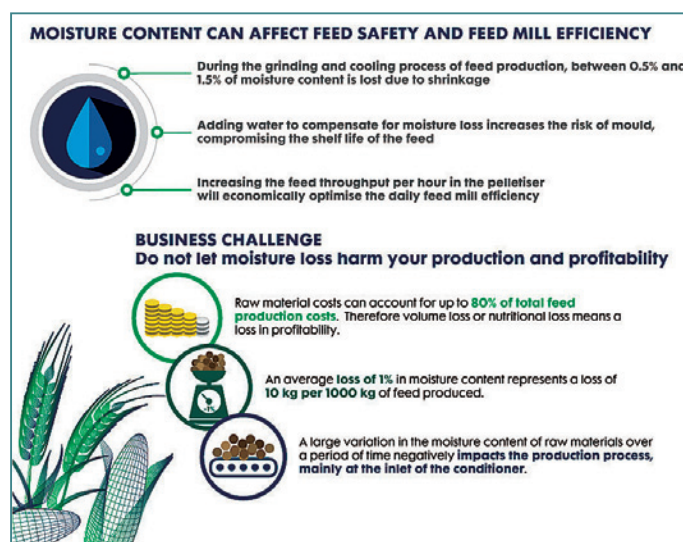


Fig. 1: Relative effect of Fylax Forte HC in a 10% hydrating solution on pelletiser specs (based on 8 commercial trials)

Fig. 2: Feed Safety Customer Value- process moisture management in numbers



appear straightforward, water possesses high surface tension and does not distribute uniformly throughout the feed matrix. Instead, free moisture often remains on the surface of feed particles, increasing water activity and creating favourable conditions for microbial growth. The challenge for the modern feed industry is, therefore, not simply increasing moisture content, but ensuring moisture is effectively distributed and retained throughout the feed while maintaining microbial stability.



Mould Growth: A Feed Quality and Profitability Threat

Moulds are among the most significant biological threats to feed quality. Beyond visible spoilage, moulds consume valuable nutrients, reduce energy content, affect feed palatability, shorten storage life, and create conditions favourable for mycotoxin production. The economic implications can be significant. Raw materials often constitute up to 80% of total feed production costs. Any reduction in nutritional value, shelf life, or feed volume directly impacts both manufacturers and producers downstream.

Emerging Scientific Approaches to Mould Inhibition

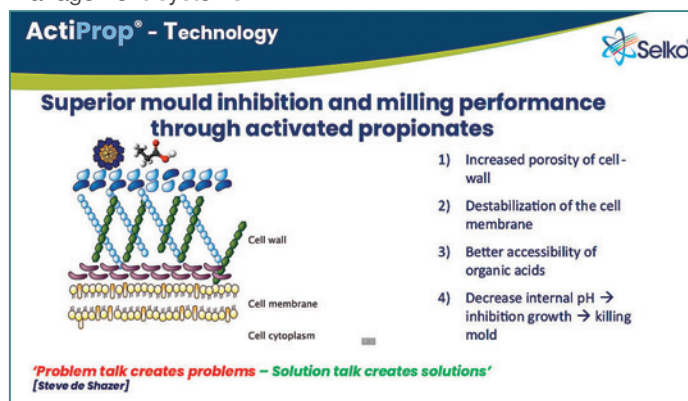
Advances in feed preservation technology have moved beyond conventional organic acid applications. Modern solutions increasingly combine multiple modes of action to optimise efficacy under practical feed manufacturing conditions.



These technologies typically integrate:

- Organic acids
- Buffered acid systems
- Moisture management agents
- Surfactants and emulsifiers
- Synergistic bioactive compounds

Such approaches improve moisture distribution, enhance contact between active ingredients and microbial cells, and prolong preservation effectiveness throughout storage. This scientific evolution reflects the industry's transition from simple preservation strategies toward integrated moisture and microbial management systems.



Commercial Validation: Integrating Moisture and Feed Hygiene

Research and commercial evaluations have demonstrated that moisture management and mould control must work together. In one reported study, the addition of plain water alone reduced feed shelf life by approximately 33%. However, when moisture was combined with an integrated mould inhibition program, shelf life improved compared to untreated feed while preserving feed quality and stability. Additional commercial applications have shown benefits including:

- Improved feed mill throughput
- Enhanced pellet durability

- Reduced reprocessed fines
- Better moisture retention
- Improved production efficiency
- Greater feed stability during storage

These findings highlight that effective moisture optimisation depends on simultaneously managing microbial risks.

A Modern Approach for South Asia

Recognising the unique challenges faced by feed manufacturers in tropical climates, Trouw Nutrition has developed integrated solutions specifically designed to optimise moisture management and feed hygiene.

Among these solutions is the Fylax portfolio, which combines organic acid technology, moisture management agents, surfactants, and the proprietary ActiProp technology platform. The objective is to improve moisture distribution, enhance mould inhibition, preserve nutrient value, and support feed mill efficiency within a single integrated program. ActiProp technology works by increasing mould cell wall permeability and improving access of active ingredients to microbial targets, resulting in enhanced preservation performance compared with conventional approaches. At the same time, moisture-management components facilitate more uniform distribution of moisture within the feed matrix, helping improve operational efficiency and shelf-life outcomes.

In today's feed industry, moisture management can no longer be viewed simply as a processing parameter—it is a critical driver of feed quality, feed safety, and profitability. As feed manufacturers across India and South Asia face increasing challenges from humidity, raw material variability, and shelf-life pressures, an integrated approach that combines moisture optimisation with effective mould control is becoming essential. By preserving nutrient value, reducing shrinkage, improving pellet quality, and enhancing microbial stability, modern feed hygiene solutions can help mills achieve greater operational efficiency while delivering safer, more consistent feed to livestock producers. Ultimately, successful feed preservation is not just about preventing spoilage—it is about maximising value throughout the feed-to-food chain.

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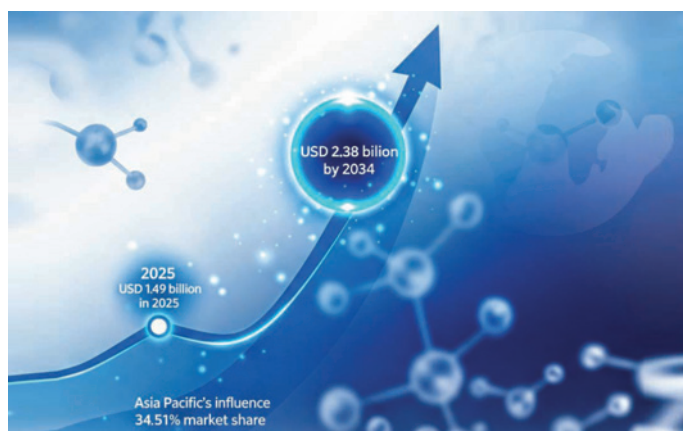
Asia Pacific Sets the Pace in Global Feed Enzyme Growth

Team ABTL



Global Feed Enzymes Market on a Growth Trajectory

Valued at USD 1.49 billion in 2025, the market is projected to reach USD 2.38 billion by 2034. Asia Pacific has emerged as the most influential region, accounting for 34.51% of the global market share in 2025. This dominance underscores the region's significant role in shaping future demand.



Asia Pacific Driving Global Expansion

The Asia Pacific region is currently driving global expansion in the animal farm and aquaculture sectors, particularly within India, China, Japan, and Southeast Asia. This growth is increasing the demand for high-quality feed products that enhance both efficiency and sustainability.

Feed enzymes are playing a critical role in this shift by allowing producers to replace traditional grains like soybeans, wheat, and corn, thereby reducing reliance on imports. Market projections for 2026 reflect this rapid adoption, with India's feed enzyme market projected to reach USD 0.1 billion, highlighting the region's rapid adoption of enzyme-based solutions.

Poultry remains the largest livestock segment, accounting for 43.14% of the global market in 2026, while swine feed continues to grow alongside pork consumption. These trends reinforce the region's increasing reliance on enzyme-based feed solutions.



Enzymes Transforming Asian Livestock Production

Recent reports emphasise nutrient utilisation as a critical driver for adoption, as feed enzymes improve digestion, enhance nutrient absorption, and serve as sustainable alternatives to antibiotic growth promoters.

With several governments banning antibiotic growth promoters, the environment for enzyme-based solutions is increasingly favourable.

KEY BENEFITS INCLUDE



Improved feed efficiency and nutrient utilization



Reduced nitrogen excretion, supporting eco-friendly farming practices



Enhanced compliance with livestock production sustainability goals



Strong alignment with Asia's priorities regarding environmental concerns & food security



Opportunities and Challenges within Emerging Markets Specifically in India and Southeast Asia

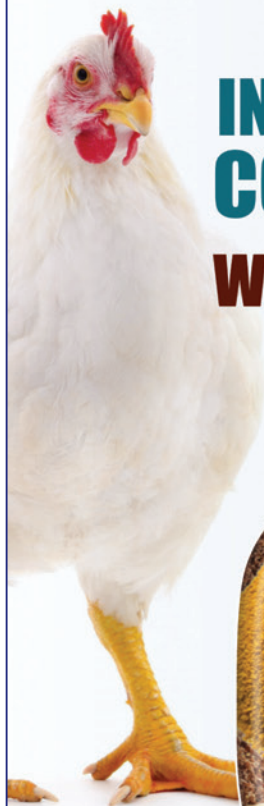
These regions present significant potential for expansion; companies are increasingly investing in advanced formulations tailored to diverse animal species to strengthen their market presence.



However, we must address certain challenges such as high production costs and inconsistent efficacy across species. While microbial fermentation is scalable, the complexity of the processes involved continues to drive up costs.

Despite these restraints, the Asia Pacific region remains dominant due to strong demand, supportive policies, and rising consumer expectations for sustainable food systems. With a focus on innovation and sustainability, Asia Pacific is well-positioned to lead the next chapter of growth in the feed enzyme sector.





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ROSSVMIX

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Improves the haematological parameters and blood profile



Boosts growth and immunity



Maintains cellular structure and supports metabolism



Improves blood markers and physical appearance



Helps in recovery from injuries and stress

The company's

Manufacturing Facility at DAHEJ

in Bharuch, Gujarat, is a major hub for the production of Vitamin Premixes, Mineral Premixes, MultiEnzyme Complex, Feed Additives, and speciality Nutrition Solutions for the poultry, dairy, aquaculture, and livestock sectors. With a robust manufacturing capacity of approximately 13,000 MT per month, the facility is well-positioned to cater to the growing nutritional requirements of the animal production industry.

To ensure consistency, precision, and product quality, Rossari has invested in advanced processing technologies, including Bühler manufacturing systems, which support efficient and standardized production of premixes and feed additives.

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Equipped with Bühler manufacturing system for sufficient, precise and standardized production of premixes and feed additives.

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LARGE PRODUCTION CAPACITY

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What Touches Food, Touches Health

SHRIDHAR speaks



Tarun Shridhar
Director General,
Indian Chamber of
Food and Agriculture,
and former Secretary,
Ministry of Fisheries,
Animal Husbandry and
Dairying, Govt. of India

“Cooking doesn’t kill all bacteria, but proper food handling does”. Every meal we consume traverses a complex journey through a series of surfaces, vessels, and protective barriers. We think about food in terms of taste, freshness, nutrition, and of course the price; rarely about the material that touched that food before it reached our mouth. It has gone through several rounds of packaging: from harvesting to transportation for processing and further to markets; processing equipment; storage containers; industrial silos; conveyor belts; retail parcels; cookware, kitchen utensils, tableware et.al., including the plates and bowls it gets served in. Food contact materials (FCMs) are an ignored but constant partner of the global food supply and consumption. Defined as any material or article intended to come into contact with food, already in contact with food, or reasonably expected to transfer its constituents into food under normal usage, FCMs are the physical dimension of food safety.

50% of all packaging material and 60% plastic packaging material is used for food packaging. Globally, paper and cardboard account for an estimated 34% of food packaging materials, while glass and metals represent 11 and 6%, respectively. Plastics dominate, making up 37% of food packaging materials. Over two-thirds of all packaging materials produced are reportedly used in the food and beverage industries, and in the plastic

industry, single-use plastics account for a 50% proportion of total plastic production. The food sector is the largest consumer of single-use packaging, accounting for up to 35% of global packaging production, with approximately 85% ending up in landfills or as mismanaged waste.

Food contact materials are the silent interface between the food system and the human body. The term covers all materials intended to come into contact with food, including plastic, paper, glass, and metal. The need of regulating them is to make sure they do not compromise safety or food quality. As one simple slogan puts it, “A safe package is a silent ingredient.”

The great irony of modern food systems is that the very materials that help protect food can also become a source of concern. Food contact materials are designed to make food handling, storage, transport, preparation, and serving safer and more practical, yet we should also evaluate whether substances from those materials might migrate into food.

“Migration” is the key word in this entire debate. In regulatory terms, it refers to the transfer of constituents from the material into food, so the regulation should focus on preventing transfer at levels that could endanger health, change food composition in an unacceptable way, or alter taste and odour. The real question is not whether food contact materials are good or bad in the abstract; the real question is whether the right material is being used for the right food, under the right conditions, with the right controls.

Plastic became one of the most prominent food contact materials because it solves many practical problems: it is lightweight, durable, versatile, and easy to shape into films, trays, bottles, pouches, lids, and multilayer formats for different kinds of foods. These properties make it especially useful in a world where food often travels long distances, sits on shelves, and must remain protected during transport and handling. Therefore, plastic is not popular by accident; it fits

the needs of modern retail, logistics, and convenience. Plastic may only be one part of the larger food-contact universe, but it is prominent enough that both the United States and the European Union maintain plastics-specific regulatory pathways.

Plastic, however, is not alone. Glass remains important because it is valued in many uses for stability and visibility; metal packaging continues to matter because it can provide strong barrier protection and long shelf life, and paper and board are widely used where lightweight, convenient packaging is needed. The result is not a single-material world but a layered system in which plastic, paper, glass, and metal all play significant roles. Paper and board may look simple, but their food-contact performance often depends on coatings, inks, adhesives, and barrier layers rather than paper alone. In other words, the package that appears most natural to the eye may still be a chemically complex article. “Light on the shelf, heavy in consequence” is how experts describe this food-packaging age. A material can seem ordinary and still carry enormous implications for safety, waste, cost, and trust.

Where does the risk lie? The central concern with all food contact materials is not their existence but their chemistry. Materials that touch food must be assessed on the likelihood of their components’ transfer into food. This is where the story becomes more nuanced than the usual public debate. Plastic is neither automatically safe nor automatically unsafe; safety depends on the specific substance, the finished article, and the conditions under which it is used. A container meant for one food or one temperature may not be appropriate for another, which is why intended use matters so much in food-contact regulation.

The overall regulatory status of a food-contact material depends on the status of the individual substances that make it. That means coatings, additives, stabilisers, inks, adhesives, and other components are just as important as the base material



itself. This principle also helps explain why public anxiety often focuses on plastic. Plastic packaging is highly engineered, widely used, and deeply embedded in modern food systems; so questions about migration, repeated use, heat exposure, and fatty foods tend to draw particular attention.

The adage “prevention is better than cure” fits this topic so well. In food-contact policy, prevention means choosing the right material, controlling how it is made, and making sure it is used only in ways for which it was actually designed. Glass, metal, paper, and board are not futuristic replacements waiting in the wings; they are already recognised and regulated food-contact categories used in today’s packaging systems. Each material offers real advantages, but each also carries limitations that must be understood in practical rather than ideological terms. Glass is often valued because it is stable in many common applications and allows consumers to see the product. Its obvious drawbacks are weight and fragility, which matter in transport, handling, and retail operations. Metal packaging can be highly effective where strong barriers and shelf life are priorities. But metal systems also depend on appropriate design and

components so that food quality and safety are maintained over time. Paper and board appeal to consumers because they appear lighter, simpler, and in many cases more environmentally acceptable, yet their safety depends on the substances used in coatings, barriers, inks, and adhesives.

An alternative material is not automatically better just because it is not plastic. A material may look acceptable in theory, but if it is poorly manufactured,

transport, and maintain quality, but it also demands disciplined oversight as substances can migrate into food.

The truth is both ordinary and profound. Every meal is shaped not only by farmers, processors, retailers, and cooks, but also by the plate, bowl, bottle, wrapper, tray, film, liner, coating, and container that touched it along the way. From farm to fork, every step matters. Therefore, the responsible position is to recognise that

**In food-contact policy, prevention means
choosing the right material, controlling how it is
made, and making sure it is used only in ways
for which it was actually designed**

contaminated, or used outside its intended conditions, the safety picture changes. This is why the debate over food contact materials should not be framed as a simple contest between convenience and concern. Packaging helps protect food, reduce handling damage, support

food contact materials are indispensable to modern food systems, that plastic remains a major part of that reality, that alternatives are evolving, and that strong regulation is the bridge between useful packaging and safe food. The simple truth is what touches food, touches health.

COVER



THE GROUND TRUTH

Often overlooked, floor litter is one of the most critical factors determining broiler health, welfare and productivity directly influencing profitability. **Prof. (Dr.) R. N. Sreenivas Gowda**, Former and Founder VC, KVAFSU, Bidar, Former Director, IAH & VB, Bangalore, Former Professor and Head, Dept. of Pathology, Veterinary College UAS, Bangalore explores the science, management practices and innovations behind optimal litter management for IPR

Introduction

Litter (often called poultry or broiler litter) is a mixture of materials used as a floor covering in poultry houses. It primarily consists of an initial bedding material combined with the accumulated waste from the birds over time.

Floor litter in a poultry house is a critical determinant of broiler health, directly impacting welfare, performance, and financial returns. Because broilers are in constant contact with the bedding, poor quality litter—often characterised by high moisture and ammonia levels—leads to serious health issues, including footpad dermatitis, breast blisters, and respiratory problems.

Common Bedding Materials

Farmers choose materials based on local availability, cost, and how well they absorb moisture:

- **Wood products:** wood shavings (preferred), sawdust, or wood chips
- **Agricultural by-products:** Rice hulls or husk, chopped straw, peanut hulls, and sugarcane pomace
- **Other options:** Shredded paper or sand

Components of Litter

As a flock grows, the clean bedding transforms into litter by mixing with:

Bird excreta (manure)

- Feathers shed by the birds
- Spilled feed and water

Main Functions of Litter

- **Moisture Absorption:** It soaks up liquid from droppings to keep the floor dry
- **Thermal Insulation:** It protects birds from the cold ground (concrete or dirt floors)
- **Cushioning:** It provides a soft, non-slip surface for birds to rest and walk on, reducing leg and breast injuries
- **Behavioral Support:** It allows birds to perform natural instincts like scratching, foraging, and dust bathing

Deep Litter System

The Deep Litter System (or “built-up litter”) is a sustainable poultry management method where bedding and manure are allowed to accumulate and naturally decompose over several months rather than being cleaned out daily.

How it Works?

The process relies on beneficial bacteria breaking down waste, similar to a compost pile.

- **Initial Setup:** You start with a base layer of about 3–5 inches of dry bedding, such as wood shavings or rice hulls
- **Layering:** As the bedding gets soiled, you add fresh layers on top. Over time, the depth builds up to 8–12 inches
- **Decomposition:** Bacterial action in the litter generates heat, which helps keep the floor dry and warm for the birds



Core Benefits

- **Low Maintenance:** You only need to perform a full “clean-out” once or twice a year
- **Natural Warmth:** The heat from decomposition acts as a natural heater during colder months
- **Nutrient Synthesis:** Microbial action synthesises Vitamins B2 and B12, which birds can ingest by pecking at the litter
- **High-Quality Fertiliser:** Once removed, the fully decomposed material is an excellent, nutrient-rich compost for gardens

Maintaining Ideal Litter Conditions

1. **Moisture Control:** Ideal litter moisture should be maintained between 20–25%. If a handful of litter forms a tight ball, it is too wet; if it falls apart, it is too dry
2. **Proper Ventilation:** Adequate ventilation is the most effective method for managing moisture and ammonia levels in the house
3. **Bedding Material:** Select absorbent, lightweight materials like wood shavings or rice hulls to provide insulation and cushioning
4. **Drinker Management:** Leaky or improperly adjusted drinkers are a major cause of wet litter; maintaining appropriate water pressure and height is essential
5. **Litter Treatments:** Using products to decrease pH can limit ammonia release, though these should not be used as a substitute for proper ventilation and water management
6. **Start-up Timing:** It is best to start the system during a dry period of the year to allow at least two months for bacterial colonies to establish before wetter weather arrives

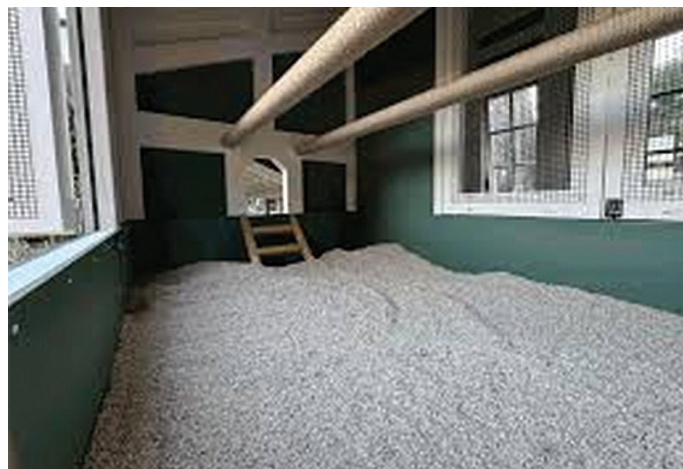
Health Impacts of Litter Quality

Impacts of Litter Quality on Broilers

- **Pathogen Exposure:** Poor-quality, moist litter acts as a breeding ground for bacteria and fungi, leading to increased

bacterial loads and diseases such as coccidiosis.

- **Respiratory & Ocular Health & Ammonia:** Wet litter produces high levels of ammonia, which causes conjunctivitis (blindness), burns to respiratory tracts, and reduced weight gain. Ammonia gas levels above 25 ppm can irritate ocular and respiratory membranes, leading to inflammation, reduced feed intake, and secondary infections
- **Skin and Foot Health:** Wet litter causes severe skin conditions like footpad dermatitis (lesions on the feet) and breast blisters, which can cause downgrading at processing. Wet or “caked” litter (sticky, compressed layers) leads to prolonged contact between the bird’s skin and moisture. This is the primary cause of:
 - **Footpad Dermatitis (FPD):** Painful lesions and ulcers on the feet
 - **Breast Blisters & Hock Burns:** Skin sores caused by resting on damp, abrasive surfaces



- **Disease Prevention:** Dry litter acts as a barrier against pathogens. Conversely, damp conditions provide a perfect breeding ground for coccidiosis (a parasitic intestinal disease) and harmful bacteria like Salmonella or E. coli
- **Thermoregulation:** A thick layer of litter (ideally 3–6 inches) acts as insulation, protecting young chicks from the cold floor and preventing condensation
- **Performance Metrics:** Poor litter reduces feed intake, resulting in lower body weight, higher food conversion rates (FCR), and reduced flock uniformity

Ideal Litter Standards

According to The Poultry Site and other extension guides, optimal litter should be:

- **Moisture Content:** Maintained between 20% and 25%. If litter is too dry (below 15%), it becomes dusty, irritating the birds' lungs
- **Friability:** It should be loose and crumble easily when squeezed in a hand; if it forms a ball, it is too wet
- **Materials:** Common materials include wood shavings, which are highly absorbent, or chopped straw and coffee husks

Management Tips for Healthy Litter

1. **Ventilation:** Ensure adequate air movement to remove moisture and ammonia
2. **Waterer Maintenance:** Regularly check for leaks and adjust drinker height to prevent spillage
3. **Regular Turning:** Routinely “turn” or aerate the litter to prevent caking and encourage evaporation
4. **Density Control:** Avoid overcrowding, which increases manure and moisture accumulation



Conclusion

Floor litter quality in a poultry house is a critical determinant of broiler health, welfare, and performance, directly influencing profitability for producers. Because broilers spend their entire lives in close contact with the flooring, the litter serves as a primary source of environmental stress or comfort.

Proper litter management, which begins with the previous flock's cleanup, is crucial to ensuring optimal health and maximizing broiler performance, particularly in “No Antibiotics Ever” (NAE) production environments.





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*adjusted to 2kg body weight

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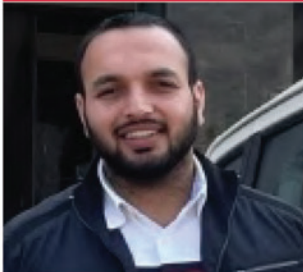


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Northern Region

COMPANY: Sampoorna Feeds FARMER NAME: Mr. Love Preet Singh	MAY-2026	Top #1
	Farm Type	Open House
	State	PUNJAB
	Chicks Placed	8,836
	Mean Age	36.3
	Avg Body Wt	2,755
	FCR	1.36
	cFCR	1.19
	Livability%	90.6
	Daily Gain	76.0
	EPEF	506


Eastern Region

COMPANY: IB Group FARMER NAME: Mr. Noor Alam	MAY-2026	Top #1
	Farm Type	Open House
	State	BIHAR
	Chicks Placed	1,458
	Mean Age	36.0
	Avg Body Wt	2,395
	FCR	1.35
	cFCR	1.26
	Livability%	95.3
	Daily Gain	66.5
	EPEF	468


Central Region

COMPANY: IB Group FARMER NAME: Mr. Shekh Shahid	MAY-2026	Top #1
	Farm Type	Closed House
	State	MADHYA PRADESH
	Chicks Placed	12,465
	Mean Age	40.0
	Avg Body Wt	3,304
	FCR	1.52
	cFCR	1.23
	Livability%	94.6
	Daily Gain	82.6
	EPEF	512


South Region

COMPANY: IB Group FARMER NAME: Mr. Srinivasulu Reddy	MAY-2026	Top #1
	Farm Type	Closed House
	State	ANDHRA PRADESH
	Chicks Placed	8,255
	Mean Age	34.0
	Avg Body Wt	2,454
	FCR	1.35
	cFCR	1.25h
	Livability%	94.8
	Daily Gain	72.2
	EPEF	504


May 2026 -Top PERFORMANCE BY AREA

Area	Chicks Placed	Mean Age(Days)	BW	FCR	cFCR(2Kg)	Livability%	Daygain	EPEF
North EC House	14,124	37.0	2,766	1.45	1.28	97.0	74.8	499
North Open House	8,836	36.3	2,755	1.36	1.19	90.6	76.0	506
East EC House	16,981	43.0	3,306	1.58	1.29	96.7	76.9	470
East Open House	1,458	36.0	2,395	1.35	1.26	95.3	66.5	468
Central EC House	12,465	40.0	3,304	1.52	1.23	94.6	82.6	512
Central Open House	2,921	40.0	2,654	1.47	1.33	97.4	66.4	437
South EC House	8,255	34.0	2,454	1.35	1.25	94.8	72.2	504
South Open House	2,678	40.0	2,327	1.44	1.37	95.9	58.2	385

May 2026 -Top 10 FIELD PERFORMANCE

Flock	Farm Type	State	Chicks Placed	Mean Age	BW	FCR	cFCR	Livability%	Day Gain	EPEF
Flock 1	OPEN HOUSE	PUNJAB	8,836	36.3	2,755	1.19	1.17	90.6	76.0	506
Flock 2	OPEN HOUSE	UTTAR PRADESH	5,272	40.0	2,980	1.21	1.17	95.6	74.5	498
Flock 3	OPEN HOUSE	PUNJAB	5,620	34.0	2,485	1.23	1.19	92.2	73.1	503
Flock 4	CLOSED HOUSE	MADHYA PRADESH	12,465	40.0	3,304	1.23	1.20	94.6	82.6	512
Flock 5	OPEN HOUSE	PUNJAB	4,655	34.0	2,476	1.24	1.20	93.0	72.8	501
Flock 6	OPEN HOUSE	UTTAR PRADESH	1,787	42.0	2,793	1.25	1.21	96.1	66.5	446
Flock 7	CLOSED HOUSE	ANDHRA PRADESH	8,255	34.0	2,454	1.25	1.22	94.8	72.2	504
Flock 8	OPEN HOUSE	PUNJAB	9,963	36.1	2,813	1.25	1.22	92.6	77.8	500
Flock 9	CLOSED HOUSE	CHHATTISGARH	10,276	37.0	2,793	1.26	1.22	95.7	75.5	502
Flock 10	CLOSED HOUSE	MADHYA PRADESH	12,360	44.0	3,465	1.26	1.22	95.1	78.8	471

Effects of Commercial Premixes Supplementation on Productive Performance Parameters of Laying Hens

Bharat L. Sadarao, Partha P. Das,
Venket M. Shelke and R. Chanthirasekaran
Kemin Industries South Asia Pvt. Ltd.

Abstract

Layer farmers aim to produce eggs that meet breed standards. However, productivity often declines due to nutrient deficiencies resulting from limited feed availability, rising feed costs, and variation in raw materials. To overcome these challenges, premixes are added to poultry diets to supply essential nutrients, support bird health, and improve productivity. These premixes are formulated cost-effectively to enhance growth, egg production, immunity, livability, and overall product quality.

The present study evaluated the effect of two different premixes on the productivity of laying hens. A total of 30,900 laying hens (29 weeks old) from a single shed were selected and observed over five experimental periods, each lasting five weeks, including one control and four treatment periods.

The experimental design was as follows:

- T1 (Control): Diet supplemented with premix supplied by Competitor Company
- T2, T3, T4, and T5 (Treatment): Diet supplemented with premix supplied by Kemin Company (KEPREX LR PRO)

Both premixes were added at a rate of 5kg per metric ton of feed, with their nutritional matrix considered during ration formulation.

At the end of the experiment, egg production, feed consumption per egg, mortality, and cost efficiency were evaluated. The results showed that laying hens fed with premix based on KEPREX LR PRO exhibited higher egg production and better feed efficiency compared to the control group. Additional egg production of 1,22,330; 1,62,830; 1,59,040; and 1,37,360 eggs were recorded during the T2, T3, T4, and T5 periods, respectively, compared to the T1 control period.

Feed consumption per egg during the T1 control period was 135.23g, which was 13.12g, 16.98g, 15.43g, and 13.92g higher than T2, T3, T4, and T5 treatment periods, respectively.

This improvement in efficiency resulted in a cost advantage of INR 3,76,290; INR 5,12,231; INR 4,71,463 & INR 4,01,081 in favour of the KEPREX LR PRO treatment periods compared to the competitor product control period. Consequently, a return on investment (ROI) of 4:1, 5:1, 5:1, and 4:1 was achieved in the KEPREX LR PRO groups.

Based on these results, KEPREX LR PRO is a practical and cost-effective solution that ensures uniform delivery of precisely dosed feed additives, leading to improved performance and profitability for poultry farmers.

Introduction

Poultry farming is the most rapidly developing branch of the agro-industrial complex, which demands better quality of feed and feeding technology for poultry. A lack of feed and rising feed costs stimulate the need to seek opportunities to further increase the biological value of basic feeds and to determine the texture of compound feeds, in which the addition of biologically active substances and feed additives would be the most effective. The premix products in feed industries will have different combinations of multiple feed additives, such as vitamins, minerals, enzymes, acidifiers, surfactants, probiotics, and other feed substances, which play an important role in diets. The Asia-Pacific region currently holds most of the global market share for poultry feed premix and is expected to maintain this position during the forecast period because of improved R&D capabilities and increased consumption of meat and meat-related products, particularly in India. To ensure that birds consume sufficient nutrients, premixes are added to their diets to compensate for shortages caused by changes in the natural concentration of certain nutrients. The premixes are manufactured with cost-effective formulations for healthy growth, productivity, and immunity to attain excellent health, increase livability, and enhance the quality of animal products, among other goals. Therefore, many countries of the world tend to use premixes instead of protein concentrate in bird diets to get rid of the pathological infections that occur and to ensure that the bird gets its needs of nutrients and vitamins.

Kemin Agrifoods, India, has entered the premix business to cater to feed mill and poultry customers with customised formulations. KEPREX is a highly competitive and comprehensive feed premix for poultry feed, offering improvement in the efficiency of premixing at the feed mill and better performance from the birds at the field level.

Objective

This study aimed to increase the production of eggs using feed additives-based premix containing KEPREX LR PRO in compound feeds for laying hens.

Materials and Methods

The trial was conducted at a customer commercial layer farm facility in Telangana, India, from 19/09/2022 to 12/03/2023 for 25 weeks. A total of Thirty Thousand and Nine Hundred white leghorn birds (Skylark Bovans) of age 29 weeks were selected from a single shed, which is suffering from the problem of lower egg production performance from peak production age by considering the farm observations, the experimental design was divided into five experimental periods containing control and

treatment of five weeks each, along with birds' age (Table 1). The five experimental periods used were as follows: T1 (control period) - Added the premix "Competitor product" to basal diet formulated by customer and supplied by Aviops Nutraceuticals Company; T2, T3, T4 & T5 (treatment periods) - Added the premix KEPREX LR PRO to basal diet formulated by Kemin technical person and supplied by Kemin Industries South Asia Pvt. Ltd. Hereafter, for a better understanding of studies, experiment period T1 is referred to as a control period, and T2, T3, T4 & T5 experiment periods will be referred to as treatment periods.

The premix, "Competitor Product" contains a multi-component toxin binder, multi-component acidifier, liver stimulant powder, NSP degrading enzyme complex, phytase, probiotics, trace minerals, and vitamins as per the latest specification fortified with choline and amla in a free-flowing phyllosilicate base. Whereas the premix, KEPREX LR PRO is a combination of essential supplements and additives that go into poultry layer feed, such as vitamins, organic trace minerals, digestive enzymes (NSP Enzymes, Phytase, and Protease), biosurfactants, hepatoprotectants, active microbial, mycotoxin control agents, and antioxidants. The experiment diets have corresponded to the formulated basal diet containing premix products, added at a dose of 5kg per metric ton of feed, implying a premix nutritional matrix of 0.80% crude protein (CP), 80 kcal/kg metabolisable energy (ME), available phosphorous 0.1%, and 1 % digestible amino acids (DAA) in the ration calculation. Before carrying out a series of experiments on laying hens, we studied the chemical and amino acid composition of the T1 premix diet containing "Competitor Product" and T2, T3, T4 & T5 premix diets containing KEPREX LR PRO using feed formulation software (BrillFeed Management System, Inc). Diet T2, T3, T4 & T5 were formulated on a digestible amino acid (DAA) basis, keeping lysine as the reference amino acid by using the same feed formulation software. Feed cost was measured by calculating raw material costs. The ingredient composition and calculated analysis of the experimental rations used are presented in Table 2.

Table 1: Details of experimental periods		
Periods	Birds Age	Description
T1*	29 th - 33 rd week	Added the premix “Competitor Product” @ 5Kg/MT of feed to a basal diet formulated by the customer
T2	34 th - 38 th week	Added the premix “KEPREX LR PRO” @ 5kg/MT of feed to a basal diet formulated by Kemin
T3	39 th - 43 rd week	
T4	44 th - 48 th week	
T5	49 th - 53 rd week	
*T1 - Control period, T2, T3, T4 & T5 – Treatment period		



Table 2: The ingredients and chemical compositions of experimental period diets		
Parameters	T1	T2, T3, T4 & T5
Maize	300	300
Broken Rice	200	240
Soybean Meal (45%)	140	125
De-oiled Rice Bran (DORB)	120	90
Groundnut De-oiled Cake (GN DOC)	60	60
Rapeseed Meal	40	40
Stone Grit	123	123
Di-Calcium Phosphate (DCP)	7	10
Salt	3	3
Sodium Bicarbonate	0	1.5
L-Lysine HCL	0.5	0.75
DL-Methionine	1	1.5
Choline Chloride (60%)	0.5	0.5
Competitor product (Premix)	5	0
KEPREX LR PRO (Premix)	0	5
Total	1000	1000.25
Cost/kg in INR	24.88	24.98
Nutrient Specification		
Crude Protein (%)	16.86	16.56
Metabolisable Energy (Kcal/Kg)	2442	2545
Crude Fiber (%)	4.45	4.16
Ether Extract (Fat) (%)	2.78	2.67
Calcium (%)	4.06	4.12
Available Phosphorus (%)	0.33	0.38
Digestible Lysine (%)	0.70	0.71
Digestible Methionine (%)	0.34	0.39
Digestible Cystine (%)	0.21	0.21
Digestible Arginine (%)	1.11	1.08
Digestible Threonine (%)	0.50	0.49
Digestible Tryptophan (%)	0.18	0.17
Digestible Isoleucine (%)	0.56	0.56
Digestible Valine (%)	0.67	0.67
Digestible M+C (%)	0.56	0.60
Linoleic-Acid (%)	0.94	0.92
Sodium (%)	0.17	0.18
Chloride (%)	0.25	0.23
Potassium (%)	0.71	0.69
Choline (Mg/Kg)	1385	1375
Salt (Na+K-Cl) – DEB (%)	182	188
ME: CP Ratio	156	154

The experiment was divided into five periods of 5 weeks (35 days) each to collect data and to calculate the variables of performance. The productive characteristics that were evaluated are egg production (%), feed consumption (g), feed consumption

per egg (g), and mortality (%). Actual egg production for all five periods was compared with the standard egg production of respective periods as per Skylark Bovans management guide for a better understanding of the effect of premix products on egg production. Feed consumption per period was recorded periodically and used to calculate daily feed intake per hen. Feed consumption per egg was calculated through the ratio between feed intake and egg production. The laying hens were housed in a California cage in an open-house system under the same managerial and hygienic conditions throughout the experiment. The birds were fed in the morning and afternoon with feed and water provided on an ad-libitum basis. All experimental protocols were followed by the Kemin technical team based on their standard protocol.

Results

Nutrient analysis of feed formulation

The nutrient composition analysis of “Competitor Product” and “KEPREX LR PRO” feed formulation is presented in Table 2. Results of the nutrient composition study suggest that the metabolisable energy in the T2, T3, T4 & T5 diets supplemented with KEPREX LR PRO was 2545Kcal/kg, which was 103Kcal/kg higher than in the T1 diet supplemented with “Competitor Product”. The amount of crude fiber was 0.29% lower in KEPREX LR PRO concentrate than in “Competitor Product”, which had a positive effect on the quality of the resulting product. The amount of digestible methionine (%) as an amino acid in T2, T3, T4, & T5 was 0.39%, which was 0.05% higher than in the T1 diet.

Egg production

The goal of layer poultry producers in raising laying hens is to achieve the standard egg production recommended by breed manuals. This was clearly shown by the results obtained from the treatment period in the experiment conducted on laying hens. The inconsistent results in egg production were observed when birds received a T1 control period diet. On the other hand, when the treatment period (T2, T3, T4 & T5) diets were fed on top with KEPREX LR PRO to the birds, not only did it increase the laying rate over the T1 control period, but also surpassed the egg production above the standards set by the breed company during subsequent treatment periods (Figure 1).

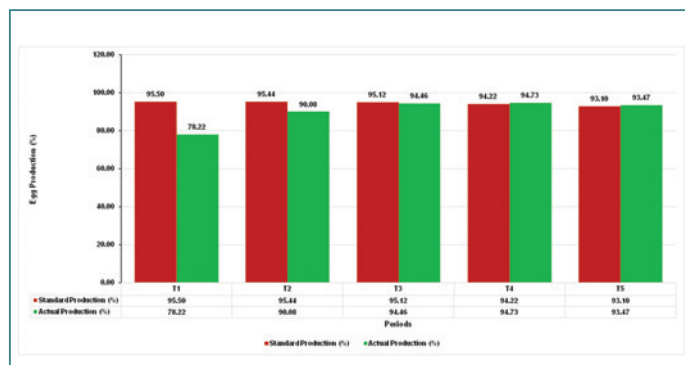


Fig. 1: Standard versus actual egg production during experimental periods

Similarly, it was found that the use of the premix KEPREX LR PRO under T2, T3, T4 & T5 treatment periods contributed to an increase in gross egg production (Table 3). As can be seen from the data in Table 3, 27.45 eggs per hen were obtained in the T1 control period, while 31.63, 33.17, 33.28 & 32.90 eggs per hen were produced in the T2, T3, T4 & T5 treatment periods, respectively, during the experimental period. This parameter in the treatment period exceeded the T1 control period by 13.21%, 17.26%, 17.52% & 16.56% respectively.

Parameters	Periods				
	Competitor product	KEPREX™ LR PRO			
Total number of birds	30900	30735	30543	30339	30128
Total number of eggs produced	843640	965970	1006470	1002680	981000
Average egg-laying by one hen	27.45	31.63	33.17	33.28	32.90
Egg produced over T1 (%)		13.21	17.26	17.52	16.56

Parameters	Periods				
	Competitor product	KEPREX™ LR PRO			
Total feed consumption (MT)	114	118	119	120	119
Difference in feed consumption (MT)		+4	+5	+6	+5

Feed consumption

It was established that with the use of the premix containing KEPREX LR PRO in the feed for laying hens of the treatment period, the total feed consumption during the entire experiment was higher by 4, 5, 6 & 5 metric tons in T2, T3, T4, & T5 treatment periods, respectively (Table 4). At the same time, an important indicator in assessing the egg productivity of hens is the feed consumption per egg. The feed consumption per egg in the T2, T3, T4 & T5 treatment periods was 122.11g, 118.24g, 119.79g & 121.30g, which is lower by 13.12g, 16.98g, 15.43g & 13.92g, respectively, than in the T1 control period (135.23g) as shown in Figure 2.

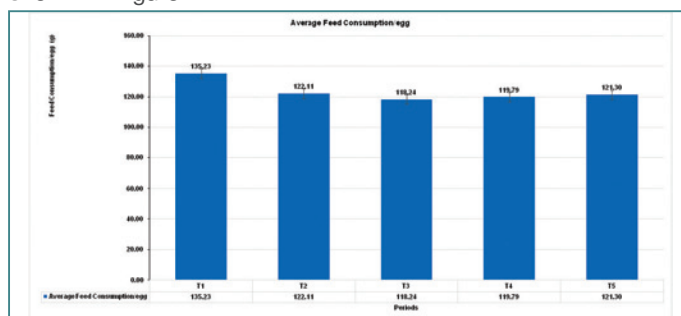


Fig. 2: Feed consumption per egg during experimental periods

Mortality

The observations regarding mortality in all five experimental periods are presented in Figure 3. The observed mortality pattern was higher in T2, T3, T4 & T5 treatment period diets supplemented with the premix KEPREXLR PRO. The total mortality recorded during the experiment in the T1 control period was 165 birds. At the same time, the calculation of the mortality birds from T2, T3, T4 & T5 was 192, 204, 211, and 307, respectively. The higher mortality during the T5 treatment period was mainly due to the viral outbreak at the farm, which was well taken and prevented by early stepping measures.

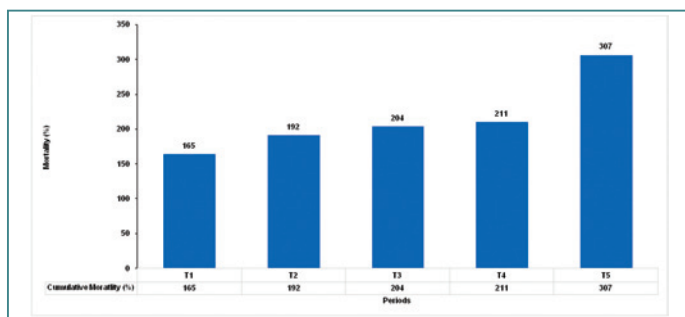


Fig. 3: Cumulative mortality during experimental periods

Cost efficiency and return on investment (ROI)

The cost efficiency & ROI of the premix containing KEPREX LR PRO as part of the feed are shown in Table 5. Despite the higher feed consumption, mortality, and price of formulated feed in the treatment periods, an increase in the gross production of eggs by 1,22,330; 1,62,830; 1,59,040 & 1,37,360 in T2, T3, T4, & T5 treatment periods, respectively, compared with the T1 control period. This improvement in gross egg production made it possible to obtain an additional net profit of INR 4,89,320; INR 6,51,320; INR 6,36,160 & INR 5,49,440 through the sale of eggs from T2, T3, T4, & T5 treatment period, respectively. As a result, the cost advantage of the use of premix was INR 3,76,290; INR 5,12,231; INR 4,71,463 & INR 4,01,081 in favor of KEPREX™LR PRO treatment periods compared to the “Competitor Product” control period. A detailed ROI was carried out for all the treatment period groups, which depicted that supplementation of KEPREX LR PRO in T2, T3, T4, & T5 provided an ROI of 4:1, 5:1, 5:1, and 4:1, respectively, indicating the economic benefits of the program in layer feed.

Table 5: Cost efficiency and economic benefits during experimental periods

Parameters	Periods				
	Competitor product	KEPREX™ LR PRO			
Number of birds	30900	30735	30543	30339	30128
Gross egg production	843640	965970	1006470	1002680	981000
Gross egg sale revenues (INR)	3374560	3863880	4025880	4010720	3924000
Net profit/loss from egg sale (INR)		489320	651320	636160	549440
Feed consumption (kgs)	114000	118000	119000	120000	119000
Feed cost per kg (INR)	24.88	24.98	24.98	24.98	24.98
Cost of feed consumption (INR)	2836833	2947434	2972412	2997390	2972412
Net profit/loss from feed Intake (INR)		-110601	-135579	-160557	-135579
Number of mortality birds	165	192	204	211	307
Cost of mortality birds (INR)	14850	17280	18360	18990	27630
Net profit/loss from mortality (INR)	-	-2430	-3510	-4140	-12780
Cost advantage of using "KEPREX LR PRO"	-	376290	512231	471463	401081
Total Inclusion Cost of KEPREXLR PRO (INR)	-	100300	101150	102000	101150
ROI	-	3.75	5.06	4.62	3.97

Discussion

In commercial egg production, production is determined based on the number of eggs laid. In the experiment conducted on laying hens, supplementation with KEPREX LR PRO during the T2, T3, T4 & T5 treatment periods improved performance, with more efficient feed utilisation and higher egg production. At the same time, the calculation of the feed consumption per egg in the T1 control period was 135.23 g, which is 13.12g, 16.98g, 15.43g & 13.92g higher than T2, T3, T4 & T5 treatment periods, respectively. Nikolaev et al. (2019) reported in reference that egg production is intimately related to the growth and physiological condition of the hens' reproductive organs and is influenced by the rate at which their bodies undergo metabolic processes⁸. Similarly, the author also observed that the reduction of feed consumption per unit of output is facilitated by balanced rations⁷. The inconsistent results in egg production as well as feed consumption per egg in the T1 control period diet demonstrated that the nutritional composition provided was not enough to fulfill productive performance levels. This has been well proven through analysis of the chemical composition of the feed formulations using Brill software, which showed lower metabolisable energy values of 103 kcal/kg and digestible methionine in the diet. Apart from this, the available feed raw materials are poor in quality, being deficient in available energy, protein, and minerals, which calls for the use of new, more modern sources³.

Peak performance, expressed in weeks and percentages, will show the health of the farm and flock and should be attained in accordance with breed standards to improve flock economic efficiency. Therefore, despite the higher feed consumption, mortality, and price of formulated feed in the treatment periods, the improvement in gross egg production and lower feed consumption per egg made it possible to obtain an additional cost advantage along with better return on investment (RoI) in favor of treatment periods. As a result, KEPREX LR PRO is an accessible and inexpensive solution designed to ensure proper distribution of precisely measured feed additives to give greater performance and profitability for poultry farmers at the appropriate time.

Conclusion

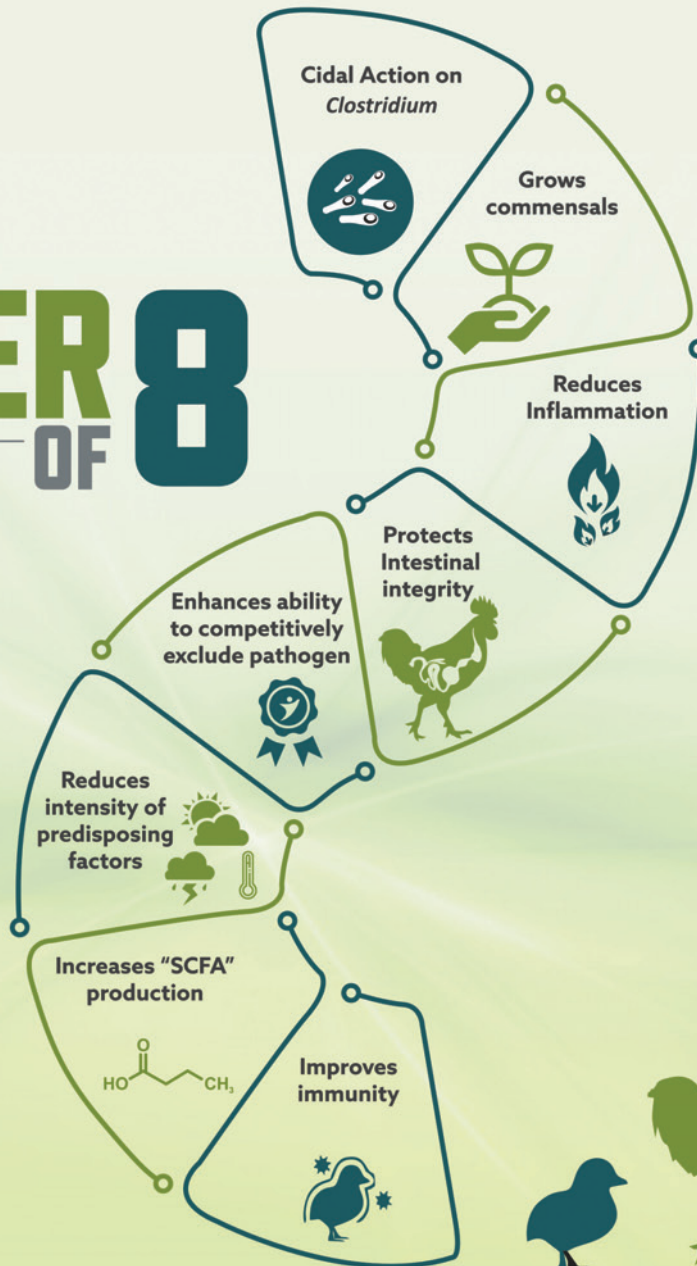
In conclusion, analysis of the egg productivity of laying hens showed that the birds from the experimental group, in which premix based on KEPREX LR PRO was used, had a higher egg-laying capacity and better feed efficiency per egg. The addition of feed additive premix based on KEPREX LR PRO to the formulated diet helped to increase birds' productivity and feed utilisation efficiency, which had a beneficial impact on the cost-effectiveness (ROI) of poultry operations.

(References on request)

CLOSTAT™ 365 DRY

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FSSC 22000



FAMI-QS

IPEMA-Poultry India Flags Impact of Imported Poultry Equipment on MSMEs

IPEMA-Poultry India participated in the Confederation of Indian Industry (CII) Roundtable on “Poultry and Animal Feed: Ensuring Feed Security and Sustainable Growth of India’s Poultry Sector,” held in New Delhi recently. The event brought together policymakers, industry leaders, researchers, nutrition experts, and stakeholders from across the poultry value chain to discuss strategies for strengthening the sector and supporting the vision of Viksit Bharat 2047.

Representing IPEMA-Poultry India, President Uday Singh Bayas joined deliberations on feed security, sustainability, competitiveness, and long-term industry growth. A key highlight was the release of the CII study paper, “Unlocking the Potential of India’s Poultry Sector for Viksit Bharat 2047,” by Dr. Naveena B. Maheshwarappa, Animal Husbandry Commissioner, alongside leading industry representatives.



During the discussions, Mr. Bayas raised concerns over the increasing influx of poultry-keeping machinery from China, urging the Government of India to consider a ban or higher import duties on products being dumped in the domestic market. He noted that such imports adversely affect Indian MSME manufacturers and often leave poultry farmers with substandard equipment. The proposal received strong support from participants, and Dr. Naveena assured the industry of due consideration.

The roundtable underscored the importance of India’s poultry sector, valued at approximately Rs. 2.7 lakh crore annually and supporting nearly six million livelihoods, while highlighting the need for greater collaboration to build a resilient and globally competitive industry.

NATIONAL

Haryana Government Assures Key Reforms to Strengthen Poultry Sector

The Haryana Government has assured a series of reforms aimed at enhancing the ease of doing business and accelerating the growth of the state’s poultry sector. The assurances were conveyed during a high-level meeting between a delegation of the Poultry Federation of India (PFI), led by its President Ranpal Dhanda, and senior state government officials.



The meeting, facilitated by Haryana Education Minister Mahipal Dhanda, brought together Chief Secretary Anurag Rastogi, Principal Secretary to the Chief Minister Arun Kumar Gupta, Haryana State Pollution Control Board Chairman Vinay Kumar, and Director of Animal Husbandry and Dairy Development Dr. Prem Singh.

During the discussions, the PFI delegation highlighted the challenges faced by poultry farmers and entrepreneurs while underscoring Haryana’s significant contribution to India’s poultry industry. Responding positively, the government agreed to simplify pollution control regulations for poultry farms, review the exemption of Change of Land Use (CLU) requirements, and address market committee fees on maize and bajra sourced from other states.

The government also proposed promoting egg consumption through various departments, including the Mid-Day Meal programme, and approved the formation of a Poultry Development Committee with industry representation.

PFI President Ranpal Dhanda welcomed the initiatives, stating that they would reduce regulatory hurdles, encourage investment, generate employment, and support the sustainable growth of Haryana’s poultry sector.”

India Establishes Regulatory Pathway for HPAI Vaccines

In a landmark move to strengthen the country's preparedness against Highly Pathogenic Avian Influenza (HPAI), the Department of Animal Husbandry & Dairying (DAHD), Government of India, on 22nd June 2026 announced a regulatory framework for the import, evaluation and eventual use of HPAI vaccines in the poultry sector.

The new policy creates a structured pathway that includes approval from the Central Drugs Standard Control Organisation (CDSCO) for vaccine strain imports, bridging studies against circulating field strains under the guidance of the High Security Animal Disease Laboratory, Bhopal, regulatory review before commercialisation, and mandatory surveillance, reporting and data-sharing requirements for vaccine suppliers and users.

Industry stakeholders have welcomed the initiative, noting that it balances innovation, scientific validation, disease surveillance and biosecurity—critical elements for strengthening India's animal health ecosystem. The framework is expected to facilitate access to advanced vaccine technologies from both global and domestic animal health companies, supporting poultry farmers and veterinarians with scientifically validated disease-control tools.

The development reflects sustained engagement between government and industry bodies, including Indian Federation of Animal Health Companies (INFAH), Poultry Federation of India (PFI), CLFMA of India and All India Poultry Breeders Association, marking an important step toward a more resilient and science-driven poultry sector.

Recycled Poultry Waste Rivals Pashmina

Walk into the Golden Feathers stall at the Art Park in Goa and you could be knocked over with a feather when you learn what the soft-as-pashmina, pretty pastel stoles and shawls on display are made of — chicken feathers, collected from butchery waste. Golden Feathers is one of the first startups to be funded by the newly launched Brij Incubator, which looks for crafts-oriented sustainable enterprises and is being featured at the Serendipity Arts Festival. Jaipur-based Golden Feathers, founded by Radhesh Agrahari, turns waste from butcheries into not just fabric but also paper and bags.

"I got the idea when I was doing my post-graduation at the Indian Institute of Crafts and Design," says Agrahari, who is a textile engineer. He describes how one kg of broiler chicken has around 650 gm of edible parts and 350 gm of waste. "The waste from the industry is huge and clogs up landfills and rivers, so the idea was how to collect it and sanitise it and do something with it," he explains.

Agrahari started his research in 2010, experimenting with natural processes to sanitise poultry waste and extract fibre. "We did not want to use any chemicals. Normally sulphuric acid is used in industrial waste treatment. But we found a process involving steam treatment and natural soaps. It is a 27-step process, after which the feathers are converted into yarn, paper and pulp," he says.

Golden Feathers was set up in 2019, but it was only in 2021 that it started commercial operations.

At the company's Jaipur factory, there is a waste segregation unit, and a feather processing plant. "There are four types of feathers — neck, wing, body and tail. The tail feathers are used for making fabric, while the body feathers we use to make commercial paper on which printing is possible," says Agrahari. "Normal paper uses several kgs of wood, while ours is cellulose-free and does not require bleaching either," he says. Unused feathers go into vermiculture. In the last three years, Golden Feathers has recycled 500 tonnes of chicken butchery waste. Each year it upcycles 57,000 kg chicken feathers.

The eco-friendly products are cheaper too — where a pashmina shawl starts at Rs. 1 lakh, the feather shawl of GSM 110 is priced Rs. 10,000, and is warmer. Agrahari describes how they revived an ancient craft tradition of handspun fabric. Near-ly 1,200 tribal women have been trained and employed.

Agrahari says the funding received from Brij Incubator — he declines to disclose the amount, only saying it is in crores — will be used to scale up the business. Already, the products are finding buyers in the US and Europe. "We will use the funding for marketing and global expansion," he says, buoyed by the response the products have received at Lakme Fashion Week and Seoul Design Festival. "This is a future fabric and future paper," sums up Agrahari, describing how the company has applied for carbon credits for its end-to-end solution to convert waste into eco-friendly products.

Consumers Feel Heat As Chicken, Egg Prices Climb Across AP

Chicken has suddenly become a costly affair for households across Andhra Pradesh, with retail prices soaring from Rs. 220 per kilogram on 15th June to Rs. 330 per kilogram, marking a steep Rs. 110 increase in just over two weeks. The sharp rise has put additional pressure on family budgets, especially as egg prices have also witnessed a significant hike during the same period.

On 15th June, eggs were selling at around Rs. 6 each, but they are now retailing at Rs. 8.50 per egg, reflecting a sharp increase that has affected both consumers and small businesses dependent on poultry products.

Poultry industry sources attribute the price surge to a huge gap between demand and supply. Heavy bird mortality during the peak summer months drastically reduced poultry production, resulting in fewer birds reaching the market. While supply has fallen, consumer demand has remained strong, pushing prices to record levels. "The summer heat caused substantial losses to poultry farms. Fresh production is yet to recover, and until more birds enter the market, prices are likely to remain high," said B Rama Rao, a poultry trader.

Consumers say the price hike has forced them to rethink their weekly food budgets. "Chicken prices have been competing with mutton prices in recent times. Its price becomes unpredictable. We have minimised consumption since it became costly," said Bethu Vijaya, a homemaker.

Retail vendors echoed similar concerns, saying many customers are reducing their purchases or switching to other protein options. Restaurants and roadside eateries that rely heavily on chicken have also started feeling the pinch, with some considering price revisions for popular dishes.

Canada Funds \$892K Antimicrobial Research for Poultry Health

Project targets *E. coli* and *Salmonella* alternatives to antibiotics.

The Canadian government has announced an investment of up to \$892,122 for Amphoraxe Life Sciences Inc. to develop antimicrobial peptide formulations as alternatives to conventional antibiotics in poultry production, Agriculture and Agri-Food Canada said.

The funding comes through the AgriScience Program's Projects Component and was announced by Wade Grant, member of parliament for Vancouver Quadra, on behalf of agriculture minister Heath MacDonald.

Amphoraxe Life Sciences will develop and test up to ten antimicrobial peptide formulations targeting avian pathogenic *E. coli* and *Salmonella Enterica*, using sustainable production methods. The project aims to reduce dependence on traditional antibiotics and help address antimicrobial resistance in the poultry sector.



"Antimicrobial resistance is steadily eroding the effectiveness of the antibiotics poultry producers have relied on for decades," said Inanc Birol, scientific lead and chief science officer at Amphoraxe Life Sciences. "With this project, we are using advanced genomics, AI, and peptide engineering to build a new, Canadian-made toolbox so farmers can keep flocks healthy, protect food safety, and stay competitive without depending on traditional antibiotics."

"Support like this helps Canadian companies turn strong science into real products that benefit farmers and consumers," said Fatih Birol, CEO of Amphoraxe Life Sciences. "By advancing peptide-based alternatives to antibiotics, we can tackle antimicrobial resistance while building high-value jobs and exportable technologies here in Canada."

INTERNATIONAL

US Heat-Treated Chicken Paw Exports to China Surged in 2025

US exports of heat-treated chicken paws to China surged in 2025, reaching 80,447 metric tons valued at \$252.8 million, up 82.9% in volume and 53% in value year over year, according to a USDA Foreign Agricultural Service poultry marketing update on China.

The growth has been driven by HPAI restrictions that continue to block a large number of US poultry plants from exporting frozen raw paws to China despite a 2020 regionalization protocol. Heat-treated paws have emerged as an alternative, gaining market share due to their lower price and improved US processing methods that allow the product to be re-fried or further prepared after arrival.

However, the USDA said imports of heat-treated paws are currently facing stricter inspections and higher rejection risks in China, with non-tariff barriers expected to limit further growth in 2026. China also granted market access for heat-treated chicken paws from Kazakhstan in September 2025, though volumes are expected to be very limited.

Australia Detects Second H5N1 Case as Poultry Sector Locks Down

Australia reported a second case of highly pathogenic H5N1 bird flu in Western Australia on Monday, after confirming its first over the weekend, as the government vowed to rein in the spread of the virus, reported Reuters.

A migratory seabird known as a northern giant petrel found sick on a remote beach tested positive, Agriculture Minister Julie Collins said, after a brown skua case on Saturday. Both birds were found near the coastal town of Esperance, about 570 km (350 miles) southeast of the state capital of Perth.

"We're working very closely with both the chicken, meat and the egg poultry system and industries to do everything that we can do and improve biosecurity, and those systems and those areas to stop it from getting into those production systems," Collins said.

"Can we do that forever? We don't know the answer to that, that is a hypothetical," she added.

Human infections remain rare, but the global spread of avian influenza has devastated flocks, disrupted supplies and pushed up food prices in recent years. Until now, Australia had been the only continent without a confirmed mainland case, though the virus was detected in late 2025 on the sub-Antarctic territory of Heard Island. In its efforts to tackle bird flu, Australia has tightened farm biosecurity, increased testing of shorebirds, vaccinated vulnerable species and conducted response simulations.

Poultry producer Inghams ING.AX said it would move to a complete lockdown as a precaution across all farms and processing sites in Western Australia.

"There has been no detection in commercial poultry, which includes Ingham's operations and its supply chain," Inghams said in a statement.



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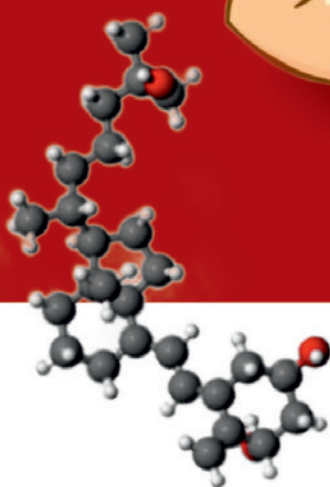
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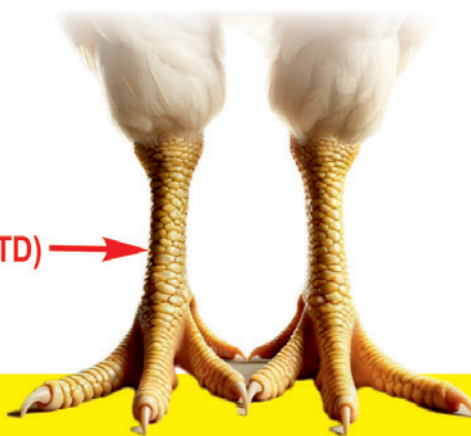


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Event

International Yoga Day 2026 Celebrated at IPEMA-Poultry India



IPEMA-Poultry India celebrated the 12th International Day of Yoga at its office bringing together staff, management, and President Uday Singh Bayas in a collective effort to embrace health, wellness, and mindfulness through yoga.

The programme was organised in line with the official theme of International Yoga Day 2026, “Yoga for Healthy Ageing”.

The yoga session was conducted by Sreeja Gaddam, a Certified Classical Hatha and Ashtanga Yoga Trainer. Through a series of guided asanas, breathing exercises, and wellness practices, she encouraged participants to incorporate yoga into their daily lives for improved health and longevity.



The session witnessed enthusiastic participation from the IPEMA-Poultry India team, reinforcing the organisation’s commitment to fostering a healthy and positive work environment.

In recognition of her valuable contribution towards promoting health and wellness, Ms. Gaddam was felicitated by the President of IPEMA-Poultry India, Uday Singh Bayas, along with other management staff during the programme.

Through such initiatives, IPEMA-Poultry India continues to encourage holistic well-being and healthy lifestyle practices among its employees and stakeholders.

IPEMA-Poultry India Secures Runner-Up Honours at EEA 2026

IPEMA-Poultry India was named Runner-Up in the “Exhibition Expansion of the Year” category at the 10th Anniversary Edition of the Exhibition Excellence Awards & Summit (EEA 2026) held in Navi Mumbai on 12th June 2026.

The award recognises the exceptional growth and international expansion of the Poultry India Expo, widely regarded as the world’s largest poultry exhibition. The honour underscores the expo’s increasing global presence, industry influence, and its role as a key platform connecting stakeholders across the poultry value chain.

Prior to the awards ceremony, Uday Singh Bayas, President, IPEMA-Poultry India, participated in a leadership roundtable on the future growth of India’s exhibition industry, highlighting opportunities in infrastructure, technology, sustainability, and global outreach.

Expressing gratitude for the recognition, IPEMA-Poultry India acknowledged the support of its members, exhibitors, partners, delegates, and stakeholders. The association reaffirmed its commitment to further strengthening the Poultry India Expo and enhancing its contribution to the growth of the global poultry industry.



Event

IPEMA-Poultry India Marks National Egg Day with Nutrition Outreach Initiative

To mark National Egg Day 2026, IPEMA-Poultry India conducted an egg distribution drive in Hyderabad, benefiting children at Sri Adharsha Foundation, senior citizens at Sri Matha Old Age Home, and residents of Sivananda Rehabilitation Home. The initiative highlighted the importance of eggs as an affordable source of high-quality protein and essential nutrients that support growth, strength, recovery, and overall well-being.

Dr. S. Ananth Reddy, Chief Administrator and Reconstructive Surgeon at Sivananda Rehabilitation Home, lauded the initiative, noting the vital role of eggs in tissue repair, healing, immunity, and recovery. Uday Singh Bayas, President, IPEMA-Poultry India, emphasised the need to improve protein consumption and nutrition awareness, reaffirming the organisation's commitment to promoting healthier communities through nutrition-focused outreach programmes.



IPEMA-Poultry India Honours Vendor Partners



The Indian Poultry Equipment Manufacturers Association (IPEMA)-Poultry India hosted its 2nd Vendor Appreciation Meet, themed “Meet • Connect • Celebrate,” on 13th June 2026 at Hyderabad. The event brought together vendor partners, exhibition professionals, MICE industry leaders, venue representatives, and key stakeholders associated with the Poultry India Expo.

The gathering was organised to acknowledge the vital role played by vendors in the sustained growth and success of the Poultry India Expo. A total of 54 registered vendors were felicitated with certificates and mementos in recognition of their commitment and support.

Addressing the attendees, Uday Singh Bayas, President, IPEMA-Poultry India, praised the vendor community for its professionalism and dedication, noting that their contribution has been instrumental in establishing the Poultry India Expo as the world's largest poultry exhibition.

The meet also provided a valuable platform for networking and collaboration, with discussions focused on strengthening partnerships and preparing for the successful organisation of the 18th Poultry India Expo, scheduled for 25th to 27th November, 2026 at HITEX, Hyderabad.

Event

CLFMA Delegation Completes U.S. Learning Tour

A delegation from the Compound Livestock Feed Manufacturers Association (CLFMA) of India recently concluded an extensive learning tour of the United States, aimed at gaining first-hand insights into global best practices across the animal agriculture and feed value chain.

Led by Chairman Divya Kumar Gulati, the delegation included senior office bearers and industry leaders representing the Indian feed sector. The tour offered exposure to international trade, logistics, grain movement, feed manufacturing, quality assurance, processing technologies and sustainable farming systems.

The industry immersion commenced in New Orleans with visits to the Cargill Reserve Export Terminal and interactions with industry stakeholders involved in grain logistics and quality assurance. A Mississippi river tour, along with engagements with Russell Marine Group and Eurofins, provided valuable insights into the infrastructure supporting global agricultural trade and grain movement.

In Iowa, the delegation met with the Iowa Secretary of Agriculture, underscoring the importance of international collaboration and policy dialogue in advancing the livestock and feed sectors. Delegates also visited the Iowa Soybean Association, where discussions focused on soybean production, commodity markets and industry partnerships.

A key highlight was the visit to the Iowa State



University Feed Mill and Grain Science Complex, where members explored modern feed manufacturing systems, grain handling technologies and research-driven innovations. Technical sessions and expert lectures further enhanced understanding of emerging developments in animal nutrition and feed technology.

The programme concluded with visits to Insta-Pro International and the Cargill Crush Plant, providing insights into soy and oilseed processing, value-added protein production and their role in supporting the feed industry. A farm visit offered a practical

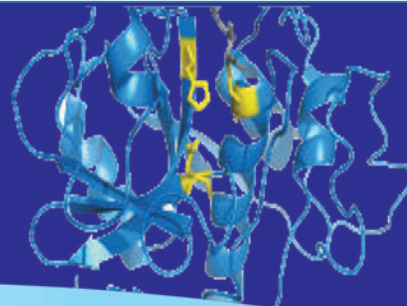
perspective on sustainable agricultural practices and on-farm management.

Reflecting on the tour, Divya Kumar Gulati said, "The U.S. learning tour provided valuable exposure to different aspects of the animal agriculture value chain. The interactions and site visits offered important insights into trade, logistics, grain movement, quality assurance, soy processing, oilseed processing and farming practices, while creating opportunities for knowledge sharing and industry engagement."



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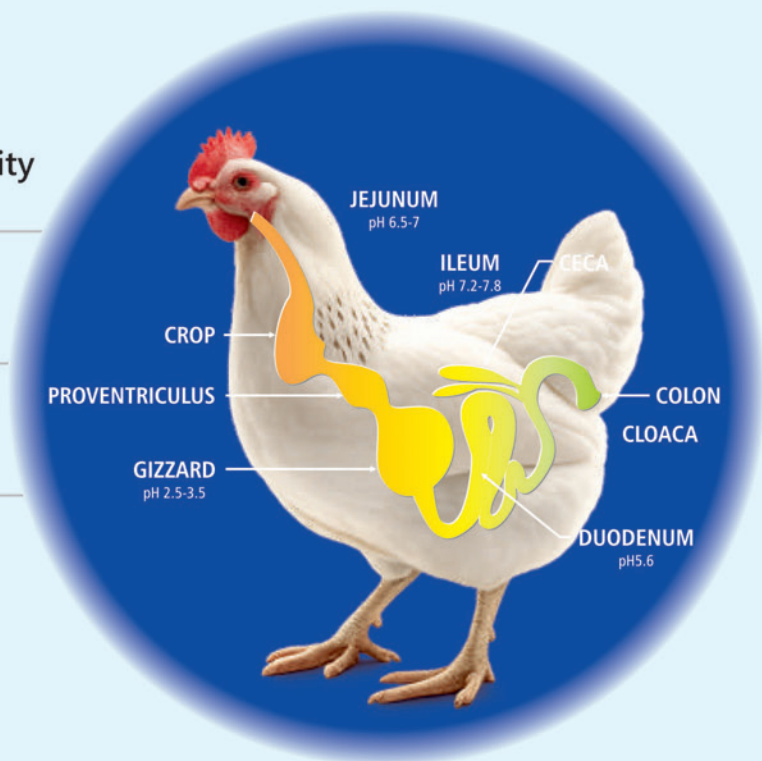
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Event

Namakkal 2.0 Sets the Agenda for the Future of India's Egg Economy



Namakkal, regarded as the Egg Capital of India, became the focal point of the poultry industry on 4th July 2026 as industry leaders, egg producers, nutrition experts, veterinarians, agribusiness professionals and academicians gathered for the IPR Knowledge Review seminar on the theme, “Namakkal 2.0: Powering the Next Decade of India's Egg Economy.”

At a time when India produces over 149 billion eggs annually and ranks as the world's second-largest egg producer, the seminar provided a timely platform to discuss the roadmap for sustainable growth, value creation, and global competitiveness.

K. Singaraj, President, Tamil Nadu Poultry Farmers Association, Zonal Chairman - NECC & Managing Director, Ponni Hatcheries; Valsan Parameswaran, Secretary, All India Poultry Products Exporters Association and Prof. (Dr.) D. Chandrasekar, Patron President, Poultry Vets Federation, Tamil Nadu & Poultry

Consultant - Namakkal participated in the seminar as Guests of Honour.

In his Thematic Address, Suresh Chitturi, Chairman and Managing Director, Srinivasa Farms highlighted the immense growth potential of India's egg and poultry sector while stressing the need for better data, efficiency, and quality-focused production. He noted that current official production figures may underestimate the actual size of the industry and welcomed the government's willingness to review and improve data collection. Looking ahead to 2047, he projected significant growth in both egg and poultry production, driven by rising demand, improved productivity, and industry innovation. Reflecting on the journey of the poultry sector over the last four decades, Mr. Chitturi pointed out that despite remarkable technological progress, egg and chicken prices have remained below inflation-adjusted levels, making poultry one





of India's most affordable protein sources. He credited farmers for achieving higher productivity with lower feed consumption, improved biosecurity, and reduced antibiotic usage. Addressing Namakkal's future, Mr. Chitturi cautioned against complacency. Drawing lessons from once-dominant poultry clusters that lost competitiveness, he urged producers to focus relentlessly on feed efficiency, management excellence, and performance benchmarking. "Namakkal 2.0 should not be about producing the cheapest eggs, but the best eggs," he remarked. He also highlighted growing consumer demand for premium and value-added eggs, including nutrient-enriched products, demonstrating that quality can command higher prices. Export opportunities, particularly in eggs and poultry products, remain substantial, provided India maintains its cost competitiveness and strengthens quality standards. In conclusion, Mr. Chitturi emphasised that the next phase of growth will belong to producers who prioritise efficiency, innovation, bird health, and superior product quality, ensuring that India remains a global leader in affordable and nutritious animal protein.

A recurring message throughout the seminar was clear: the future of India's egg sector lies not only in producing more eggs, but in creating greater value, expanding markets, and building consumer trust.

Sharing their insights at the IPR Knowledge Review were:

Mr. Mani National Sales Manager Neotle Global Pvt. Ltd.	Biopolymers for Export -Ready Egg Production
Dr. R. Chanthirasekaran Regional Director (Technical Services) Kemin South Asia	Preventing Major Disease Outbreaks in Layers – Biosecurity Tools to Protect Your Birds and Profit
Mr. Prashant Kumar Co-founder and Director Sapience Group	Artificial Intelligence to Fuel Namakkal 2.0
Dr. Debakanta Biswal General Manager - Nutrition Noveltech Feeds Pvt. Ltd.	Rethinking Profitability in Layer Farming
Dr. Narahari Founder & CEO NH ProPOWER Consultancy Services	Business Opportunities and Marketing Avenues for Liquid Egg and Egg Powder - Global and Indian Perspective 2026
Mr. Rulesh S. Kherde Managing Director Yaashvan Veterinary Services	Water Health Management: The Hidden Driver of India's Egg Economy
Mr. Rajendra Rawat Regional Manager South Asia SKA Poultry Equipment	The Future of Egg Production: Transition from Conventional Layer Farming to Aviary and Free-Range Systems - Global and Indian Perspective 2026

The IPR Knowledge Review at Namakkal successfully charted this vision, reinforcing the region's leadership role in shaping the next chapter of India's egg economy.



Event

INFAH Seminar Explores the Future of Animal Health in India



The Indian Federation of Animal Health Companies (INFAH) convened policymakers, scientists, industry leaders and academicians in New Delhi on 12th June 2026 for its National Seminar themed “Reimagining Animal Health & Nutrition in India: Driving Ease of Doing Business, Innovation & Leadership.”

The seminar highlighted the growing importance of animal

health and nutrition in ensuring food security, farmer prosperity, public health and sustainable livestock development. Aligned with INFAH’s mission, “Healthy Animals, Healthier India,” the event focused on strengthening regulatory frameworks, promoting innovation and creating an enabling business environment for the sector.



The programme commenced with opening remarks by Dr. Vinayak Surve, Joint Secretary, INFAH, followed by a welcome address from Dr. Manoj Sood, General Secretary, and a sectoral overview by INFAH President Vijay Teng. Delivering the keynote address, Dr. Praveen Malik, CEO, Agrinnovate India and former Animal Husbandry Commissioner (Govt. of India), stressed the importance of collaborative governance and regulatory reforms to accelerate access to veterinary healthcare solutions.

Addressing national priorities, Dr. J.P.S. Gill, Vice Chancellor of GADVASU, emphasised disease prevention, antimicrobial resistance management and the adoption of a comprehensive One Health approach. A special highlight of the seminar was the felicitation of Dr. Naveena B. Maheswarappa, Animal Husbandry Commissioner, DAHD, on his election as Chairperson of the FAO COAG Subcommittee on Livestock. In his address titled, "India's Opportunity through Reform & Innovation," he outlined how policy reforms and innovation can position India's animal health sector as a key contributor to economic growth and self-reliance.

Dr. Raghvendra Bhatta, Deputy Director General (Animal Sciences), ICAR, underscored the strategic importance of animal nutrition in improving productivity, food safety and farmer incomes.

During the event, Dr. Arun Atrey and Dr. Nitin Bhatia released INFAH's report on animal healthcare antibiotic usage in India for 2025. The report noted that antibiotic consumption in the livestock sector reached 1,075 tonnes in 2025, registering a 5.7% increase over the previous year, while maintaining a five-year CAGR of 2.8 %. Fluoroquinolones remained the most widely used antimicrobial class.

The seminar also featured four policy-focused panel discussions - Regulatory Framework for Animal Health Drugs and Biologicals, Animal Health and Nutrition as a National Priority, From Reform to Leadership and Innovation and Focus on Ayurveda and Phyto-genics.

Concluding the event, speakers called for stronger collaboration among government, industry and academia to build a future-ready animal health ecosystem capable of supporting India's rapidly expanding livestock sector.



Launch

ACTYMUEN Launch Signals a New Era in Poultry Immune Nutrition

The poultry industry is entering a new era where sustainable performance depends on strengthening immunity, preserving gut integrity, and enhancing resilience under increasingly challenging production conditions. In modern poultry production, immunity is no longer viewed solely as a defence mechanism; it has become a key driver of performance. A bird's ability to respond effectively to pathogens, maintain gut health, and manage oxidative stress directly influences productivity, welfare, and profitability.

Recognising this evolving need, Nanovet Nutrition partnered with International Innovation Nutrition (IIN) to introduce a science-backed immune nutrition solution for the Indian poultry sector. This collaboration culminated in the launch of ACTYMUEN across two major poultry hubs in North India—Karnal and Chandigarh.

ACTYMUEN is designed to support both innate and adaptive immunity, strengthen gut integrity, and maintain antioxidant balance, helping birds perform optimally under modern production challenges.

A key highlight of the launch was an insightful technical session by Michael Wang, General Manager, IIN Singapore, who discussed the evolving dynamics of poultry immunity, the growing significance of the gut-immune axis, and the role of next-generation nutritional technologies in enhancing flock performance.

Representing Nanovet Nutrition, Dr. Karthiga K, Head - Marketing & Technical Services, underscored the company's commitment to addressing critical industry challenges through innovative, science-driven solutions. Both organisations emphasised that the future of poultry nutrition lies in intelligently modulating immunity, protecting gut health, and building resilience against evolving production pressures.





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Launch

New Poultry Diagnostics Laboratory in Barwala

Agrivet Research & Advisory Pvt. Ltd. has strengthened its presence in India's poultry sector with the inauguration of its advanced poultry diagnostic laboratory in Barwala, Haryana. The new facility, launched during the company's hybrid event, "An Evening with Agrivet," marks a strategic expansion of its precision diagnostics network from Kolkata to northern India's key poultry belt.

The launch brought together poultry integrators, veterinarians, consultants, nutritionists, and progressive farmers, while virtual participants joined from across the country. A digital tour of the laboratory and a synchronised virtual inauguration showcased the facility's state-of-the-art infrastructure.

Technical sessions featured experts including Dr. Sudipto Haldar, Dr. U.C. Patel, Dr. Sushil Dhariwal, and Dr. Anirvid Sarkar, who highlighted the importance of laboratory analytics, precision nutrition, disease surveillance, biosecurity, and rapid diagnostics in improving poultry health and farm profitability.

Operational since 1st July 2026, the Barwala laboratory is backed by Agrivet's NABL-accredited Kolkata headquarters and is designed to deliver faster diagnostic services, reduce sample turnaround times, and support data-driven decision-making. The expansion reinforces Agrivet's commitment to providing accessible, high-quality veterinary diagnostics and technical advisory services to India's growing poultry industry.



Announcement

CLFMA of India Partners with GADVASU for Scientific Study on Moisture Content in Chicken Sausages

The Compound Livestock Feed Manufacturers Association (CLFMA) of India has signed a Memorandum of Understanding (MoU) with Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), Ludhiana, to undertake a six-month scientific research project titled “Comprehensive Evaluation of Moisture Content on the Technical Stability and Sensory Acceptability of Chicken Sausages in India.”

The study aims to generate robust scientific evidence on how varying moisture levels influence the quality, safety, nutritional value, technical stability and consumer acceptability of chicken sausages. The findings are expected to support evidence-based recommendations for the rapidly growing processed poultry sector in India.

Under the agreement, CLFMA of India will provide a research grant of Rs. 5 lakh to GADVASU for the execution of the project. The research will be led by Dr. Nitin Mehta, Professor-cum-Head, Department of Livestock Products Technology, GADVASU, with technical guidance from the university's research team.

Speaking on the collaboration, Divya Kumar Gulati, Chairman, CLFMA of India, said:

“The Indian poultry processing industry is witnessing rapid growth, driven by changing consumer preferences and increasing demand for safe, nutritious, and convenient protein products. As the industry evolves, standards and regulations must be backed by robust scientific evidence. Through this partnership with GADVASU, CLFMA aims to support research that will generate credible data on moisture content in chicken sausages, helping to strengthen technical understanding while ensuring product quality, consumer confidence, and industry competitiveness.”

Rakesh Swami, Group President – Corporate Affairs, Godrej Industries Group, and Management Committee Member, CLFMA of India, added:

“At Godrej Industries Group, we believe lasting progress is driven by collaboration between industry, government and academia. This partnership reflects both CLFMA's commitment to science-based standards and Godrej Agrovet's focus on strengthening India's animal protein value chain. Research-led frameworks such as these will help enhance quality, safety and consumer confidence, while reinforcing chicken's role as a nutritious and affordable source of protein for millions of Indians”.

The research has been structured into three phases. The first phase will establish baseline compositional data from broiler chicken meat sourced from different regions of India. The second phase will evaluate chicken sausage formulations prepared with varying moisture levels by assessing parameters such as moisture, protein, fat, texture, colour, microbial safety, cooking performance and sensory attributes. The final phase will integrate these findings to develop evidence-based recommendations on the optimum moisture content that balances nutritional quality,



processing efficiency, product stability and consumer acceptance. A consumer survey will also be conducted to assess market preferences for the different formulations.

Dr. Swarn Singh Randhawa, Director of Research, GADVASU, said that industry-academia collaborations are creating new opportunities to address scientific challenges in a systematic manner, ultimately benefiting consumers.

Commenting on the partnership, Dr. J.P.S. Gill, Vice-Chancellor, GADVASU, said:

Dr. J.P.S. Gill, Vice-Chancellor, GADVASU, Ludhiana said, “Scientific research plays a vital role in supporting evidence-based food standards and strengthening consumer trust. Through this collaboration with CLFMA of India, GADVASU will undertake a comprehensive evaluation using advanced techniques to generate reliable scientific data. The outcomes of this study will contribute to strengthening the knowledge base for India's poultry processing sector while supporting innovation, quality assurance, and informed policy decisions”.

The partnership reflects the shared commitment of CLFMA of India and GADVASU to advancing scientific research that promotes innovation, supports sustainable growth in the poultry processing industry and strengthens India's animal protein ecosystem.



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