

## An Update on Feed Supplements

"INFAH NUTRITIMES" is a strategic initiative by the Feed Supplement Subcommittee of INFAH.

Feed additives and supplements are a critical component of animal health, playing a pivotal role in enhancing the overall well-being and productivity of dairy animals, poultry, and aquaculture. This, in turn, significantly contributes to improving the economic standing of farmers.

The primary objective of this newsletter is to keep our members informed about the latest developments, insights, and trends in the feed additives and supplements segment.

In this inaugural issue, we will explore the importance and market landscape of feed additives, followed by an in-depth discussion on the various types and specific requirements of these supplements.

NUTRITIMES is planned as a quarterly publication, dedicated to providing valuable information and updates on the evolving feed supplements landscape within the animal health sector.



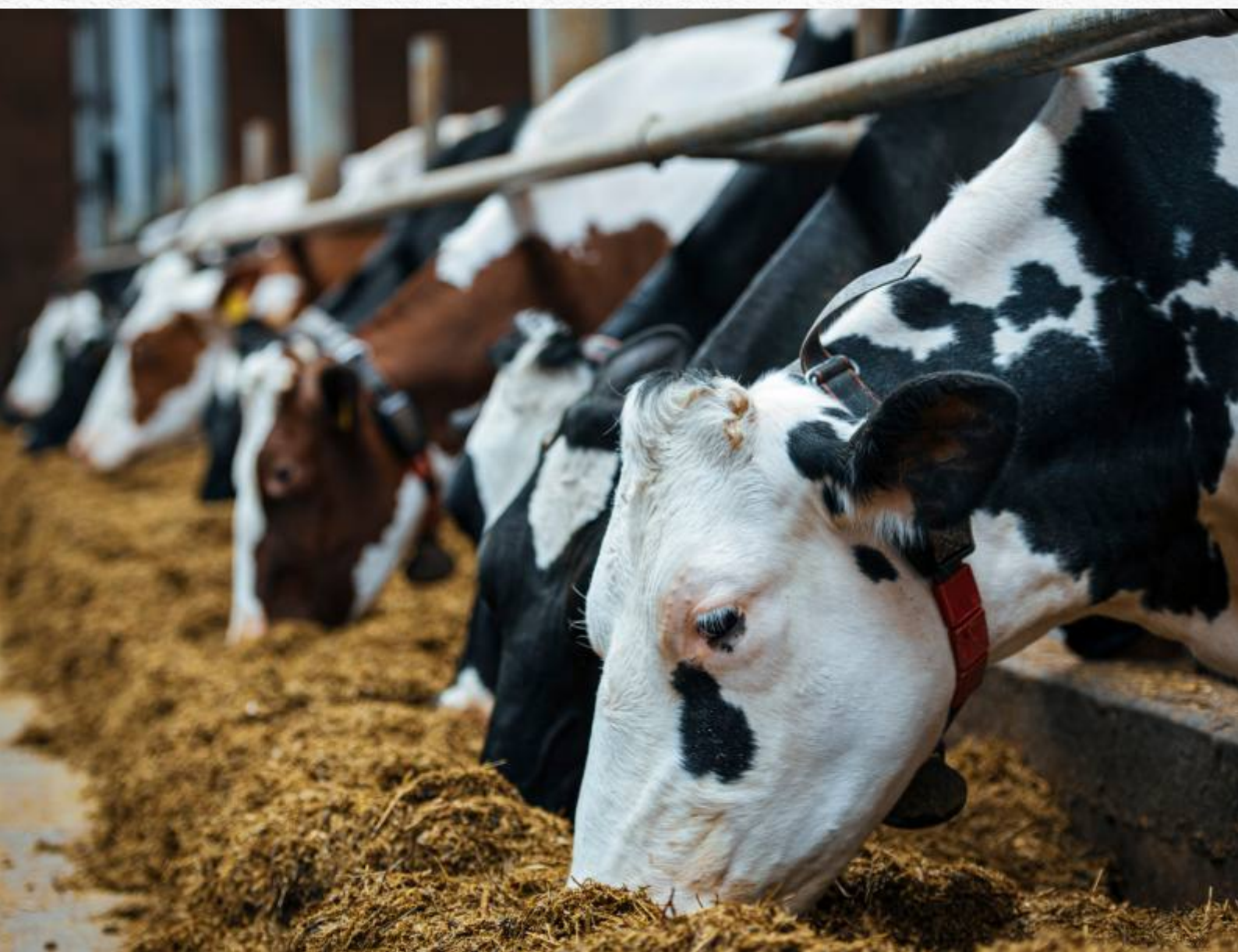


## The Importance of Feed Supplements

Feed supplements are integral to enhancing the productivity and health of Indian livestock, offering vital nutrition and supporting essential physiological functions. The industry has evolved remarkably, driven by advancements in animal healthcare practices, innovative technologies, and increased awareness among farmers. This evolution reflects a shift from mere disease treatment to a focus on - productivity enhancement, and comprehensive animal healthcare, highlighting the industry's progress and its unwavering commitment to animal welfare.

## The Role of Feed Supplements

Feed supplements are not just additional components in animal nutrition; they are indispensable. They play a crucial role in animals' maintenance, growth, and productivity. These supplements, provided in addition to the regular diet, ensure a complete and balanced intake by mixing directly with daily feed or dissolving in water. Understanding their role is key to ensuring the health and productivity of our livestock.





# Feed Supplements - An Outlook

The animal healthcare industry in India, a cornerstone of animal husbandry, has witnessed significant growth in the feed supplements and feed additives sector. These comprise an impressive 38-40% of the total Animal Health Market and are expanding at an annual rate of 10-12%, signalling a robust future for the industry. This upward trajectory and advancements in other product segments, such as antibacterials, biosecurity measures, parasiticides, hormones, and biologicals, underscore the industry's promising outlook.

Livestock industry and dairying activities along with agriculture acts as an integral part of economy since the inception of civilization. Livestock is an important sub sector of agriculture in Indian economy. It acts as an important livelihood activity for most of the farmers, supporting agriculture in the form of critical inputs, contributing to the health and nutrition of the household, supplementing incomes, and offering employment opportunities.

India being the largest livestock owner in the world with 1st in buffalo population, 2nd in cattle and goat population and 3rd in sheep population. Dairy is the largest agricultural commodity in India, contributing 5% to the national economy and employing over 8 crore farmers directly with a total bovine population of 303.76 million as per 20th Livestock census. India Ranks 1st in milk production accounting nearly 1/4th of total milk production. Apart from dairy India is 2nd largest producer and exporter of sheep, goat meat, 3rd largest in egg and fish production and 8th in meat production globally.

Livestock sector is evolving at a rapid pace so as to meet the demand of ever increasing 1.4 billion population, which is evitable from observed maximum growth seen in population of exotic milch animal during last census. The awareness of balanced nutrients requirements and its effective utilization is showing a progressive trend and thus maximizing productivity from each livestock head becomes a key for such a progressive and profitable livestock farming. One of the major factor required to enhance the productive performance is to feed a proper balanced ration as well as

ensuring its most effective utilization ahead, which can be met by providing suitable feed additives to the animals.

Feed Supplements are products used in animal nutrition for purposes of improving the quality of feed and the quality of food from animal origin, or to improve the animals' performance and health, e.g. providing enhanced digestibility of the feed materials.

Animal feed supplements is a broad term applied to the wide range of diet-enhancing products that are manufactured for livestock. Feed Supplements are available for various purposes: some are designed to deliver specific nutrients that are missing from the animals' diet; others are targeted to strengthen their immune system and help them fight disease. To elaborate, specific supply for overcoming deficiencies, improving output, resolving digestive issues, improving appetite, strengthening pregnant animals, and enhancing weak bone structure.



# Key Product Categories

The animal healthcare industry's offerings can be broadly categorised into products for prevention and cure, primarily medicines, and those aimed at improving productivity and nutrition, namely feed supplements.

## Animal Pharmaceuticals:

These include treatments for diseases or infections, vaccines to prevent infectious diseases, and a range of parasiticides, anti-inflammatory drugs, pain medications, anaesthetics, antibiotics, and specialised products for managing reproductive, cardiovascular, and metabolic conditions. This diverse array of products showcases the comprehensive solutions available for animal healthcare, providing reassurance and confidence in the industry's capabilities.

## Feed Supplements:

Feed Supplements are defined to mean substances used for animal feeding in order to:

1. Supply nutritional elements to optimise animal growth and production or meet the specific nutritional needs of the animal at a particular time, duration, or physiological status.
2. Affect the gastrointestinal flora or digestibility of feedstuffs to satisfy animals' nutritional needs or improve animal production.
3. Favorably affect the characteristics of feed materials to improve feed utilization and consumption, ensure the stability of nutrients, provide flavour, or prevent mould and microbial growth.
4. To reduce or prevent the incidence of disease and thus have a positive influence on the growth and production of animal

# Composition and Importance

Feed supplements are composed of various vitamins, minerals, proteins, enzymes, extracts, coccidiostats, probiotics, and other ingredients, suitable for mixing in feed or water, or given directly as supplements. These are essential for the maintenance, growth performance, and productivity of cattle, poultry, aquatic animals, and other livestock, ensuring a stable and balanced diet.







# Categories of Feed Supplements

Feed supplements can be categorised into two primary types:

## 1. Nutritional Supplements:

These provide specific nutrients, such as vitamins, minerals, and amino acids, necessary for optimal growth, production, and health.

## 2. Feed Additives:

These are independent ingredients diluted in appropriate bases suitable for animal consumption only and are exclusively used as part of feed formulation or compounded feed. These Feed Additives are further classified in different categories based on functionalities or type of activity.

**Sensory Feed Additives:** It helps to enhance the properties of animal feed/feed supplement, e.g., Flavor, color, etc., thus increasing the feed utilization or consumption.

**Nutritional Feed Additives:** They help balance the feed by providing nutritional elements that animals need on a daily or physiological basis to maintain health and production, e.g., minerals, vitamins, amino acids and analogues, fat and fatty acids.

**Zootechnical Feed Additives:** They improve digestibility and gut flora stability in animals. Examples include Direct-Fed Microbials, Probiotics, prebiotics, and Eubiotics (Essential Oils, Acidifiers, Buffers... etc.).

**Medicated Feed Additives:** They contain ingredients at low concentrations so that there is no therapeutic value; however, they have a general non-nutritional nature and include palatable agents, growth promoters, enzymes, toxin binders, etc., which enhance feed quality and improve the animal's voluntary intake or feed utilisation.



# Research and Development

Extensive research in animal nutrition has identified factors that optimally balance regular feed. Ingredients used in manufacturing animal feed supplements—such as vitamins, minerals, enzymes, and natural compounds—help maintain animal health, achieve optimal productivity, and enhance overall performance. These supplements improve growth, weight gain, immunity, and feed utilisation, contributing to the health and productivity of livestock.



# Forms of Feed Supplements

Animal feed supplements are available in various forms, including liquid, paste, powder, bolus, and tablets. They can be administered with regular feed or water or directly to farm animals such as cattle, poultry, swine, sheep, goats, aquatic animals, and others to balance their diet or increase voluntary intake by improving feed quality.



## Closing Thoughts

As we continue to advance and innovate in animal healthcare, feed supplements remain critical to the well-being and productivity of livestock across India. We are excited to bring you the latest insights and developments through this newsletter.

We look forward to your continued engagement and feedback as we strive to support the growth and success of the animal health industry. Together, we can build a healthier and more productive future for livestock in India.

**In our coming issues, we will touch on other aspects of feed supplements.**



Indian Federation of Animal Health Companies



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**NUTRITIMES**

**Volume - 01**