



## Phytogenic Growth Promoters Used In Poultry

(\*Ravindra Jadav<sup>1</sup>, Keshav<sup>1</sup>, Dhaval Rajgor<sup>1</sup>, Panchabhai Chaudhary<sup>1</sup> and Amrut Chaudhary<sup>2</sup>)

<sup>1</sup>Assistant Professor, M.B Veterinary College, Dungarpur, Rajasthan

<sup>2</sup>Veterinary Officer, Bhuj, Gujarat

\*Corresponding Author's email: [rjadav31@gmail.com](mailto:rjadav31@gmail.com)

Poultry is one of the fastest growing segment of the agricultural sector in India today, with growth rate of eggs and broilers have been rising at a rate of 6-7% and 5-6% per cent per annum. As a result, India is now the world's third largest egg producer and the eighth largest producer of broiler in the world. Poultry meat is the fastest growing component of global meat demand (APEDA, 2022). Antibiotic growth promoters have made a significant contribution to the poultry industry's profitability. It was recently discovered that the usage of antibiotics as a growth booster in chicken has resulted in certain unfavorable outcomes. Therefore, poultry nutritionists are trying to come up with a replacement of antibiotic growth promoters and use of alternative feed additives in the poultry diet (Sharifi *et al.*, 2013). In the recent decades, there has been increasing interest in the use of phytoremedies for scientific research as well as for industrial's purpose. This is mainly due to their strong biological activity exceeding those of many synthetic antioxidants which have possible activity as promoters of carcinogenesis.

### What is Phytogenic Growth Promoters?

Herbs and plant extracts used in animal feed are called phytogenics feed additives. It can also be defined as compounds of plant origin incorporated into animal feed to enhance livestock productivity through the improvement of digestibility, nutrient absorption and elimination of pathogens residents in the gut.

### Various Phytogenic Growth Promoters and Their Properties

There are so many naturally available plants like turmeric, moringa, ginger, ashwagandha, tulsi, cumin, garlic, etc. are being incorporated in poultry diet. They have different properties like anti-bacterial, anti-oxidants, anti-inflammatory, anti-diabetic, anti-carcinogenic, anti-fungal, anti-protozoal and anti-viral and so on. The use of Phytogenic growth promoters as an antioxidant is not only important for the poultry health, but also for the oxidative stability of their products (meat). A wide range of Phytogenic Growth Promoters is known to exert beneficial actions on the gastrointestinal tract, such as spasmolytic, laxative or against flatulence. Supplementation of turkey feed with extract of oregano feed significantly decreases lipid per-oxidation during refrigerated storage of fresh and cooked meat. Leaves of curry plants also have so many properties, like antibacterial, antioxidant, hepatoprotective (Bhusal *et al.*, 2021). Considering the limitations and drawbacks of the use of antibiotics, phytogenic could be used as an alternative to serve as feed additives due to their suitability and preference, lower cost of production, reduced risk of toxicity, minimum health hazards and environment friendliness. Therefore, researches have been directed towards natural antimicrobial products as indispensable resources. Natural products of plant origin like spices, herbs and many plant extracts can be considered as alternative to antibiotics as growth

promoters in improving broiler performance. They can stimulate feed intake, the endogenous secretion, or may exhibit antibacterial and anticoccidial activities. Though, garlic and ginger are reported to have multifacet effect on digestive system but in general they do have effect similar to antibiotic and act as growth promoter when used in broiler feed. Chavda *et al.*, 2022 reported that in broiler chicken, dietary supplementation with cumin seed powders significantly decreased the concentration of triglyceride, cholesterol and very low-density lipoprotein in serum.

### Conclusion

Herbs, are a relatively new class of feed additives and our knowledge is still limited regarding their modes of action and their application. When compared with synthetic antibiotics or inorganic chemicals, these plant-derived products can be an ideal feed additives.

### References

1. APEDA. 2022. Annual Report. 2021-2022. Agricultural and processed food products export development authority. Ministry of commerce and industry. Govt. of India. New Delhi. India.
2. Bhusal, D., & Thakur, D. P. (2021). Curry Leaf: A review. *Reviews in Food and Agriculture*. 2(1), 36-38.
3. Sharifi, S. D., Khorsandi, S. H., Khadem, A. A., Salehi, A. & Moslehi, H. (2013). The effect of four medicinal plants on the performance, blood biochemical traits and ileal microflora of broiler chicks. *Veterinarski Archiv*. 83(1), 69-80.
4. Chavda, K.K (2022) effect of cumin seed powder supplementation on the commercial broiler chicken. Thesis Kamdhenu University (unpublished).