

Poultry Nutraceuticals: Harnessing the Benefits of *Spirulina platensis* and *Curcuma longa*

Bismay Firkova*

Department of Veterinary Medicine, Jagiellonian University, 31155 Krakow, Poland

Introduction

As the poultry industry strives for sustainable and health-conscious practices, the exploration of natural and nutritional supplements, known as nutraceuticals, has gained prominence. Among the diverse array of potential additives, *S. platensis* and *C. longa* (turmeric) have emerged as promising candidates. *Spirulina*, a nutrient-rich cyanobacterium and turmeric, a traditional spice with potent bioactive compounds, offer a myriad of health benefits. This exploration delves into the utilization of *S. platensis* and *C. longa* as nutraceuticals in poultry, aiming to enhance overall health, performance and the quality of poultry products [1,2].

Description

S. platensis, a blue-green microalga, is renowned for its rich protein content, essential amino acids, vitamins and minerals. Its potential as a feed supplement in poultry is rooted in its nutritional profile, which includes bioactive compounds such as phycocyanins with antioxidant and anti-inflammatory properties [3]. The inclusion of *Spirulina* in poultry diets has been associated with improved growth rates, enhanced immune responses and increased resistance against various pathogens. Furthermore, the unique pigments in *Spirulina* contribute to the yolk's colour in eggs, presenting an additional benefit in the poultry industry. *C. longa*, commonly known as turmeric, contains curcuminoids with well-established anti-inflammatory and antioxidant properties. The bioactive compounds in turmeric have demonstrated potential in mitigating oxidative stress, improving digestion and supporting overall health in poultry [4]. Additionally, turmeric supplementation has been linked to enhanced meat quality, including improved tenderness and colour. The combined use of *S. platensis* and *C. longa* as nutraceuticals in poultry feed presents a holistic approach to poultry nutrition. Their complementary properties address various aspects of poultry health, from growth and immune function to the quality of poultry products, aligning with the growing consumer demand for naturally enriched and sustainably produced poultry [5].

Conclusion

In conclusion, *S. platensis* and *C. longa* represent promising nutraceuticals in poultry nutrition, offering a natural and sustainable approach to enhancing poultry health and product quality. The utilization of *Spirulina*'s nutrient-rich composition and *Curcuma*'s bioactive compounds presents a synergistic strategy to optimize growth, immune function and meat quality in poultry production. As the poultry industry continues to embrace sustainable and health-conscious practices, the integration of *S. platensis* and *C. longa* as

feed supplements showcases a forward-thinking approach to meet consumer expectations for high-quality, naturally enriched poultry products. Further research and industry adoption of these nutraceuticals hold the potential to revolutionize poultry nutrition and contribute to a more sustainable and health-focused poultry production landscape.

Acknowledgement

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Conflict of Interest

There are no conflicts of interest by author.

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*Address for Correspondence: Bismay Firkova, Department of Veterinary Medicine, Jagiellonian University, 31155 Krakow, Poland, E-mail: bisfirkova@yahoo.com

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