

MELATONIN AND PHYTOMELATONIN USED AS BIOACTIVE SUBSTANCES IN ANIMAL AND HUMAN NUTRITION

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Abstract

Nutrition and diet are two essential components for maintaining optimal health and life for the entire body, and proper nutrition, combined with good quality sleep, are two factors generally associated with promoting a healthy and balanced lifestyle. Sleep is a natural physiological phenomenon that serves to maintain the entire body in a state of rest necessary for recuperation and for the synchronization of most physiological, metabolic, and biological processes, which generally occur at a lower or higher intensity under the influence of the photoperiod. Melatonin is a biochemical compound produced by the pineal gland of vertebrates, with the purpose of acting as a biological signal, informing the body about the type of photoperiod in the external environment, and stimulating the onset of sleep. In this review paper, we conducted a detailed analysis of melatonin, based on a selection of a total of 80 bibliographic sources from the specialized literature, starting with the first evidence reported in 1917, which provided clues about the existence of this substance, and ending with the most recent information documented up to 2025, which highlights the importance of melatonin in nature through the roles and functions it performs in living organisms.

Keywords: nutrition, diet, sleep, melatonin, biological signal#