

Review Article

A REVIEW ON NUTRITIONAL COMPOSITION, HEALTH BENEFITS, MEDICINAL IMPORTANCE, AND ADVANCEMENT OF FOOD TECHNOLOGY IN KIWIFRUIT

Rameshwar Rai ^{*}, Ankita Nepal  and Sushil Rai 

Institute of Applied Science, Organic Agriculture Program,
Madan Bhandari University of Science and Technology,
Chitlang 441110, Thaha Municipality-9, Nepal

**Corresponding author:* rameshwar.rai@mbust.edu.np ; rairsansk@gmail.com

ABSTRACT

The Kiwifruit is a globally renowned fruit for its unique flavor, varied fruit flesh colors, and rich health-promoting properties. Rich in vitamins, minerals, dietary fiber, and bioactive compounds, it offers a broad spectrum of nutritional benefits. It is renowned for being an abundant source of vitamin C and K, potassium, and folate, along with phytochemicals such as polyphenols and carotenoids. The kiwifruit consists of abundant antioxidants that significantly contribute to reducing the risk of various chronic diseases in humans, such as specific types of cancer, diabetes, and cardiovascular disorders, by combating oxidative stress. The Kiwifruit has also been associated with its potential to improve digestive health, thanks to its natural enzyme actinidin, which aids in protein digestion. Moreover, kiwifruit demonstrated its abundant medicinal importance, such as anti-inflammatory, immunomodulatory, and antimicrobial properties. It supports immune system function, regulates blood pressure, and promotes skin health. Moreover, the potential of kiwifruit in managing metabolic syndromes and improving sleep quality due to its serotonin content is a promising area of research. In kiwifruit, recent advancements in food technology, such as innovative processing techniques like freeze-drying, vacuum drying, and encapsulation, which are employed to preserve its nutrients and extend its shelf life, paint an optimistic picture for the future of kiwifruit research. Recent globally renowned kiwifruit-derived food products, including juices, purees, powders, and dietary supplements, are proof of the widespread use of kiwifruit and its global popularity. Biotechnology approaches, including genetic modification and controlled cultivation practices, are also being explored to enhance fruit yield, quality, and resistance to environmental stressors. This review reveals a comprehensive understanding of the nutritional composition of kiwifruit, health benefits, medicinal properties, and the latest advancements in food technology.

Keywords: Kiwifruit, Nutritional composition, health benefits, Medicinal importance, Processing, Drying, and preservation.