

A COMPARATIVE BIOCHEMICAL ANALYSIS OF CARBOHYDRATE CONTENT IN VARIOUS RICE VARIETIES OBTAINED FROM THE LOCAL MARKET IN NAGPUR

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Abstract

Understanding the nutritional significance of paddy and rice varieties is essential for promoting a healthy diet. The research on flaking suitability aims to enhance the value-added products derived from rice, providing economic opportunities for farmers and entrepreneurs. Emphasizing the consumption of whole grains, such as brown rice, over processed white rice is crucial for maintaining optimal health and preventing chronic diseases associated with refined carbohydrates. The mean result of Anthrone test and Phenol test for total carbohydrates of 10 replications for basmati, Jaishreeram, suvarna, boiled rice and brown rice are as follows, Anthrone test 0.12, 0.10, 0.11, 0.12 and 0.13 mg/ml respectively and that of phenol test, 0.13, 0.07, 0.11, 0.18 and 0.16 mg/ml respectively. Brown rice is chosen as excellent grain choice for diabetic people as the fiber helps in maintains the blood sugar level under control (Rukmini and Raghuram, 1991) In addition, the fiber in brown rice helps to protect against colon cancer since fiber binds to cancer-causing chemicals, keeping them away from the cells lining the colon, henceforth it can help nonnalize bowel function, reducing constipation.

Introduction:

The significance of food in sustaining human life is undeniable, with nutrients playing a crucial role in maintaining health. Nutrients are classified into organic (carbohydrates, proteins, fats, vitamins) and inorganic (dietary minerals, water, and oxygen). (Fieldhouse 1995) (Houston 2000). The study of nutrients, their relationship with food, and their impact on living organisms is known as nutrition. Malnourishment occurs when an individual lacks essential nutrients. (Grosvenor and smolin, 2002) A healthy diet is essential, and the food pyramid serves as a guide, emphasizing the importance of a balanced intake of various food groups.

Significance of Food and Nutrients: Food is essential for sustaining life as it provides the necessary nutrients that our bodies need to function properly. Nutrients can be broadly classified into organic and inorganic categories. Organic nutrients include carbohydrates, proteins, fats, and vitamins, while inorganic nutrients encompass dietary minerals, water, and oxygen. Each of these nutrients plays a vital role in supporting various physiological processes and overall health.

Nutrition and Its Study: Nutrition is the scientific study of how nutrients in food interact with our bodies, influence health, and impact overall well-being. It involves understanding the sources, functions, and effects of nutrients on human physiology. The field of nutrition encompasses research into dietary patterns, nutrient metabolism, and the relationship between diet and health outcomes.