National Institute of Technology Rourkela

Departmental Seminar

Seminar Title : Return Seminar-Fortification of millet-based products to tackle malnutrition.

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Abstract

: Fortification of staple food with targeted trace minerals and nutrients is a viable approach to resist micronutrient deficiencies. Cereals have been generally used as vehicles for fortification with wide classes of vitamins and minerals from past decades. Conventional supplementation through cereals has been a part of India's policy to confront malnourishment and anemia. However, it was identified that the above strategy gained restricted success- as only 26.1% of children between one and three years of age focused on nutrient supplementation have received it. To address the widespread problem of malnutrition, it is imperative to consider the nutritional value of food to enhance overall human well-being and physical condition on a global level. Therefore, the nutritional composition of food plays a critical role in maintaining overall physical well-being, as it is a persistent determinant of human health and growth, as well as the maximization of genetic capabilities. Insufficient understanding regarding the nutritional composition of specific food items has resulted in a decline in their consumption. Millets are included within this category. Millets exhibit nutritional properties that are comparable to, or even superior to, those of major cereals in terms of carbohydrate content and energy value. Additionally, millets are a valuable source of protein, water-soluble vitamins, and minerals. Although millets are healthy and provide several health advantages, they lack specific nutrients. So, flour prepared from the millet grains has also been found suitable for fortification with desired nutrients, ensuring a relevant quantity of bio-accessible and bio-available minerals. However, it was observed that millets are minimally explored as carriers for mineral and nutrient fortification Henceforth, it is worthwhile to monitor the suitability of millet flour fortification using Iodine, Iron, Vitamin B12, and Folic acid and evaluating its health benefits, and effect on the prepared quadruple fortified flour regards to shelf-life and sensory quality of the products developed from quadruple fortified flour.