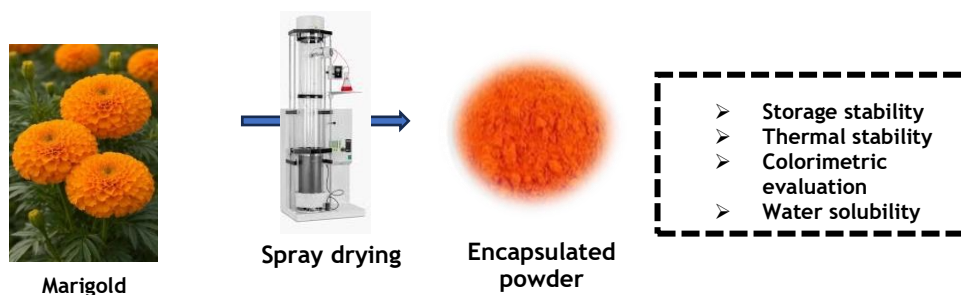


Technology for Production of Stabilized Lutein-enriched Carotenoids as Natural Colorants

Marigold (*Tagetes erecta*) is recognized as one of the richest natural sources of carotenoids, containing high concentrations of lutein and its esters, making it an ideal raw material for extracting natural pigments. CSIR-Institute of Himalayan Bioresource Technology (IHBT), Palampur, has developed a technology to extract these carotenoids from marigold flowers, followed by microencapsulation to enhance stability and water solubility. The process involves processing, extraction and stabilization of carotenoid-rich fraction. The involved encapsulation step forms a protective matrix around the carotenoid core, enhancing its resistance to oxidative degradation by light, heat, and oxygen, while substantially increasing its dispersibility and solubility in aqueous systems, a key limitation of native, lipophilic carotenoids. The resulting encapsulated powder is suitable for direct use as a natural, water-dispersible colorant in food, beverage, and nutraceutical formulations such as ice creams, candies, and functional health products.



Novelty

- Enhances water solubility and stability through microencapsulation.
- Improves oxidative and storage stability and shelf life.
- Enables use in water-based foods and beverages.

EOI is invited from interested industries/SMIs/Progressive Entrepreneurs for the transfer of the above-stated technology. The application should include details of the company profile and marketing strategies. The selected parties shall be called for discussions. Interested parties may send their Expression of Interest in a sealed cover, superscripting “Expression of Interest,” addressed to

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