

Showcasing research from Meena Krishania *et al.*, Center of Innovative and Applied Bioprocessing, Mohali (DBT-CIAB), Mohali, India.

Sustainable production of prodigiosin from rice straw derived xylose by using isolated *Serratia marcescens* (CMS 2): statistical optimization, characterization, encapsulation & cost analysis

Prodigiosin has wide applications in food and nutraceuticals. Herein, rice straw is identified as a substrate for prodigiosin production by naturally isolated strain CMS2. It is revealed that peanut de-oiled cake boosts yield and becomes a sustainable growth media. The achieved purity of prodigiosin is 97.40 %. Encapsulation is promising for water-soluble food delivery systems. Results show cost-effectiveness and commercial viability.



