

## **Effective utilization of bio-waste from small onion in food processing applications**

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### **Project Objectives**

- Extraction and characterization of dietary fibres, polysaccharides, quercetin (polyphenols) and volatile oil from the skin and stalk of the small onion.
- Application of the extracted compounds in various food products to improve its nutritional and functional properties.

### **Description**

This project is aimed at complete utilisation of wastes and by products left over from processing of small onion. The work is planned to be done by IIFPT in collaboration with Perambalur district maize and small onion farmers' producers' company Ltd. who will be providing the raw material needed for the study which is the waste from their processing industry. Also they play a major role in commercialization of the end products. A brief overview of the work includes preparation of powder from the skin and stalk portion of small onion, extraction and characterization of bioactive components including fibre, flavonoids, polysaccharides and volatile oils from the onion skin and onion stalk, followed by their incorporation in various food products for its betterment either as a shelf life extender or as a flavour/texture enhancer. Also the possibility of utilizing the skin powder as a thickening agent in various processed products like instant breakfast mixes, spice mixes, jellies etc. will be evaluated.