

# NITK gets patent to process tubers into ready-to-eat food

## New Tech Allows Removal Of More Than 90% Of Oxalates

TIMES NEWS NETWORK

**Mangaluru:** The National Institute of Technology Karnataka (NITK) Surathkal has obtained a patent for its innovative method of processing tuber crops—a technique that enables production of ready-to-cook vegetables from various aroids, without causing any skin irritation.

Prasanna Belur and the team in the chemical engineering department at NITK Surathkal developed this technology that ensures that more than 90% of the oxalates that cause irritation can be removed from a vegetable without affecting taste, aroma, and texture.



**NUTRITIOUS:** Ready-to-cook vegetable cubes produced from elephant foot yam

The vegetables produced can be preserved for a week in the refrigerator (at 4°C) and for three months if vacuum packed. Tuber crops such as elephant foot yam, taro (Colo-

casia), tannia, and giant taro contain large quantities of oxalates (300-7,500 mg per kg of corms on a dry weight basis). Ingestion of foods containing oxalates, even in moderate quantities, is believed to play a key role in calcium oxalate-induced kidney stone disease. Belur received a grant from DST, Govt of India, for collaborative work on starch production and characterisation with scientists from Mahidol University, Thailand, and De La Salle University, Philippines.

The Bengaluru-based startup produced and sold ready-to-cook elephant foot yam within Bengaluru city by deploying this technology.

The hospitality sector represents the primary customer base for this ready-to-cook vegetable product.

Belur and his colleagues showcased this innovation at InvenTiv-2024, the country's biggest research and development innovation exhibition for higher education institutions, organised last Jan at the Indian Institute of Technology, Hyderabad.

The ready-to-cook vegetable produced from acrid tubers is safe, convenient, nutritious, and proves to be affordable for urban consumers.

Now, NITK Surathkal is planning to sell patents to interested entrepreneurs and organisations.