

Companies

Start-up uses NITK tech to launch ready-to-cook, irritation-free yam

AJ Vinayak Mangaluru | Updated on November 29, 2021



Difficulty in processing, acidity keep these vegetables away from consumers

Many people in urban areas prefer to eat dishes made out of aroids such as 'elephant foot yam', but do not take the risk of preparing it. One of the main reasons for this is the difficulty involved in its processing and the acidity of the vegetable. The traditional process of making such vegetables ready for cooking is time-consuming and cumbersome.

But now, a technical education institution and a start-up have helped the consumers to get this vegetable in the ready-to-cook (RTC) format. To meet the requirements of such urban consumers, the Bengaluru-based nGV Natural Industry, a start-up on processing traditional vegetables, has come out with a RTC product after purchasing the technology to remove acidity from the Mangaluru-based National Institute of Technology Karnataka (NITK).



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Naveen GV, Founder of nGV Natural Industry, told *BusinessLine* that though the elephant foot yam is a healthy vegetable, many people avoid it because of its acidity as the vegetable causes irritation after eating it. The reason for this is the calcium oxalate in the vegetable.

Prasanna BD, Associate Professor in the Department of Chemical Engineering in NITK, who has developed a technology to produce and preserve RTC non-acrid edible aroids, told *BusinessLine* that the acidity that is present in various edible corms such as elephant foot yam (*Amorphophallus paeoniifolius*), taro (*Colocasia esculanta* var *esculanta*), tannia (*Xanthosoma violaceum*) and giant taro (*Alocasia macrorrhiza*) can be removed using NITK technology, and they can be preserved for six months under ambient conditions. Now he and his team have filed an application for an Indian patent for this technology.

Oxalate removal

Explaining the role of calcium oxalate crystals in these corms, he said these crystals are responsible for the acidity. Consumption of unprocessed aroid corms containing calcium oxalates causes caustic effects, irritation to the intestinal tract and absorptive poisoning.

Stating that total oxalates are removed traditionally by cooking, baking, frying or fermentation with additives like organic acids, baking soda etc., he said although these strategies are successful in reducing oxalate content to some extent, the colour and flavour

changes occur inevitably. Using the NITK technology, consumers can use these corms like other vegetables such as carrot, potato, etc.

Due to the tedious processing steps involved before cooking, urban consumers are not inclined for using these corms, though cheap. Due to the above limitations, farmers are not getting desired income out of aroid cultivation, even though they are easy to grow.

“Edible aroids have not realised their full potential as a food crop because of palatability problems associated with anti-nutritional factors like oxalates, trypsin inhibitors, and acidity,” Prasanna said.

Naveen said that elephant foot yam is very popular across many States in India, and it is mainly used to make fry, sambar and other dishes. To a query on the response to the launch of elephant foot yam in RTC format, he said there is good demand for this among his customers.

He said that nGV Natural is planning to enter pan-India sales of yam by using this technology. With improvement in packaging techniques, the shelf-life of the product can be extended up to six months. Even the export of this product is possible, he said.

Focus on other crops

His start-up is now interested in trying the NITK technology with other tuber crops that have oxalate and acidity. “That will bring back all roots and tuber vegetables onto the food table,” he said.

Stressing the educational and research institutions to offer their research-led technologies to the industry, he said only a handful of institutes transfer their technology now. In fact, his start-up was the first one to get a technology being transferred from NITK. “Institutions should come forward to market their technologies to the start-ups to make a new beginning in food processing,” Naveen said.

After nearly two decades of experience in the information technology (IT) sector, Naveen quit his job at an MNC in 2018 to start his own venture to work on difficult-to-process vegetables.

Now his start-up offers RTC products such as banana stem dices, banana flower, bamboo shoot and tender jackfruit under the brand name ‘Native Fresh’. Elephant foot yam is a new addition to this list. nGV Natural markets its RTC products both on retail and online platforms.

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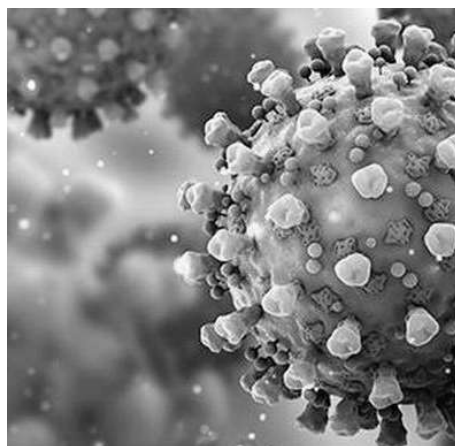


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