the pioneer
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# Packed with a punch

The National Institute of Food Technology Entrepreneurship and Management (NIFTEM) is roping in entrepreneurs, industry stakeholders and farmers for capacity building in the food processing industry. The institute's Vice Chancellor, DR CHINDI VASUDEVAPPA, talks to ANKITA SAXENA on ways to grow the ready-to-eat and processed food industry

**What are the latest developments at NIFTEM?**

NIFTEM is progressively growing and has been on a consistent development pathway. I can confidently say that we are very well-established in terms of our instructional facilities, the laboratories and even the incubation facility, which is new and has come up during the last one year. We have already conducted the trial run and are now planning to bring in the budding entrepreneurs to work at these facilities on a semi-commercial basis to produce products and variants suitable for the Indian market and cuisine. We are on the final stages of the tender process and will soon finalise the same by the end of this month. The preliminary evaluation of the food testing laboratory has been completed and we are now awaiting the final evaluation for recognisition by NABL and will then make the lab functional. We have already met the mandatory requirements to utilise these facilities to bring in more people into the food processing arena.

**How is NIFTEM working in the field of ready-to-eat product category?**

The ready-to-eat, ready-to-cook products and many other freeze-dried products are being worked upon which can be taken anywhere and cooked. We are also working on enhancing their shelf life. So basically, in freeze drying, we remove the moisture content and maintain the quality of the product. For example, mushrooms and some important fruits can be freeze-dried, packed and be stored at cooler temperatures, to be used at any time. Some products like tomato puree, tomato juice, ketchup and sauces can be processed thermally, and then packed in tins, bottles or sachets, branded, and sold to the public. Even the fruits can be processed into juices, pulp, concentrates. All these activities are going to come up in a big way at the Incubation Centre in a month's time and we will start the production. The entrepreneurs at the incubation facility may brand the products in their own name but each of these products will have an indication that they have been manufactured at the NIFTEM Incubation Facility.

**What has been the key focus of the food testing lab?**

In todays' quality conscious world, we have to give details regarding not only the composition of the product but also the pesticide, anti-biotic and heavy metal residues from the health point of view. Thus, we need to conduct a thorough evaluation at various levels. The microbes are the major enemies which spoil food so we need to conduct a proper evaluation of the various pathogenic micro-organisms which, if at all are present, need to be discarded. The testing has to be done at physical, chemical, biological as well as on a sensory level, all of which are present here. The reason we want to make this process a little commercial is because, many food products and raw materials, which are exported, need a similar certification. So, if can provide the certification, we will be able to generate some revenue and maintain the lab simultaneously.

**There is talk of a specialised facility for cold-chain development. What are your views on this?**

We are planning to establish a Cold-Chain Development School which is also a lab, to understand how the linkages and activities related to food processing can be managed in India. The fresh produce from the farms needs to be transported in a cooler environment to the locations where it can be processed or value added. The grading and primary processing is also value addition but for this, the quality of the original produce has to be maintained. We have collaborated with Danfos in this regard, to set up a lab here. So, the different cut sections required for training is being looked at and I believe it is going to be a very important facility for the entire country.

**How effective has the Village Adoption programme been for the students and the community?**

We have already sent 17-18 batches of students for this outreach programme to villages in Haryana, Punjab and Uttar Pradesh. We are also changing its format. Earlier, the students would visit the villages in every semester for a shorter duration, but once the new format is made functional, the students will visit the villages for one semester for 36 days. Under this programme, the students work with the local farmers, demonstrate the technological advancements to boost production, and also educate them on importance of cleanliness. We have linked the students to the Krishi Vigyan Kendra (KVKs) of the Indian Council of Agriculture Research (ICAR). Our main objective is capacity building for entrepreneurship and skill development. We have asked the farmers to send a list of those who may want to further train in various aspects of food processing and these will be linked to the pilot projects as well. It is a symbiotic system; while villagers gain scientific and technical knowledge through students, who promote future possibilities of food processing among them, the students obtain first-hand experience of the Indian rural scenario and understand traditional processing technologies adopted by the villagers. They are able to then also facilitate the process of integrating the underprivileged sections of our population with the main stream.

**What role can NIFTEM play to assist exports of processed food?**

Basmati rice, which is exported by India to the world alone brings in substantial foreign exchange annually. There is a demand for processed meat products from the Gulf countries, fish and shrimps from the American and European countries. Gradually, traditional food products, which have a regional taste can be popularised in the international market. There is a lot of demand for Indian curries and spices in the global marketplace and this can be leveraged. However, since we process only 10 per cent of our produce, we export a very small percentage of these products. The whole purpose of NIFTEM is to increase our capacity manpower and the awareness about quality and demand for processed food and also produce the same. I think, at least 30 per cent of the food produced should be processed. We can then easily, standardise them and scale up exports.

**What are the challenges in the food processing industry? How do you think these can be addressed?**

The manpower in this industry is very low, which is a major challenge. The production system is also weak, since a major per cent of the raw material is produced by small holder farms. They are unable to meet the requirements in terms of quality and lack the facility to bring the produce to one place for further processing. Though farmer producer organisations have come up, their effectiveness remains an issue. I also feel that there is a need to reform the leasing policy. We need to make it possible to allow the leasee to avail credit on leased land for contract farming and produce crops which are good for processing. Also, in India, a substantial percentage of the land area is a dry farm where water is not enough and thus the farmers depend on monsoons. They have to face the vagaries of weather changes and hence, are unable to manage their production to meet the cost of production. We need to provide them with some guarantee of food production systems, which could be through water management, soil nutrient management, integrated pest management and good quality seeds to take care of their production.