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THE HINDU

Getting healthy vegetables from the backyard



For K. Sundareswari (23), a resident of a remote village in Vettaikaranpudur past Pollachi, buying vegetables and fruits for her family of four was quite expensive.

She and her husband work as farm labours and make just a few hundred rupees a day, assuming they found work. Hence, providing a nutritious meal to her two daughters was almost impossible. Now, she has none of these worries. For, she gets all the vegetables necessary right from her backyard, which barely stretches 10 X 10 metres.

Under the ‘Shubh Aarambh’ initiative, she got the seeds and agricultural supplements. She now grows vegetables such as bitter gourd, beans, ladies finger, onion, radish, snake gourd, tomato, chillies and brinjal in her own kitchen garden.

“I can see the difference between my crops and those purchased in the market. As I do not use pesticides, the produce is lot more nutritious,” she says proudly.

Ms. Sundareswari’s family is one of the 410 families in Anamalai Block near Pollachi in Coimbatore district that has set up kitchen gardens under the

Shubh Aarambh initiative, implemented by Mondelez International, Magic Bus India Foundation and Save the Children.

Vinay Kaushik, Communication Coordinator, Save The Children, says demonstrations are given to the local communities about kitchen garden and material support is provided to those families who are interested.

The kitchen garden is completely organic with no fertilisers involved, which helps to keep the cost low. Further, he says they are in talks with the Government schools to set up kitchen gardens for their noon meal centres.

Further, he says through this project, Mothers Groups have been formed and are given counselling through trained personnel on the need to educate daughters and on the importance to raising them equal to boys.

Kuruvai package offers scope for farm mechanization



The kuruvai package, announced by the State government to encourage farmers to take up cultivation by using the groundwater sources in Delta areas in the wake of delay over opening the Mettur dam because of poor storage, has come as a tool for promoting mechanisation of agriculture.

As per the package, the Agricultural Engineering Department will take care of the entire expenditure on 1,500 acres, out of 7,000 acres, for paddy transplantation using transplanters. Besides this, all farmers who take up

kuruvai cultivation in the delta areas of the district, will be given Rs. 315 an acre for buying bio fertilizers and micro nutrients. It has been proposed to credit the amount to farmers through fund transfer method.

It is expected that the government move will save overhead cost to the tune of Rs. 3,000 per farmer. The farmers will have to bear other expenditures such as field preparation, seedling cost, basal fertilizer, harvest, and others.

“Transplantation cost accounts for about 20 per cent of the cost on paddy cultivation per acre. It is good that the government absorbs the overhead on transplantation,” said a farmer of Sengaraiyur near Anbil.

Collector K.S. Palanisamy, who signalled the transplantation of paddy by operating a transplanter, said the Government had allocated Rs. 60 lakh for the kuruvai package in Tiruchi district. Of this, Rs. 37.5 lakh would be spent for transplanting paddy. The transplanters engaged by the Agricultural Engineering Department would complete the transplation within two days. Since machines would be engaged for transplantation, it would spread the message of mechanisation of farming operation. R. Pandiarajan, Joint Director of Agriculture (in-charge), said six blocks such as Lalgudi, Anthanallur, Thiruverumbur, Musiri, Mannachanallur, and Pullambadi had been selected for implementing the kuruvai package. Out of 7,500 acres, Lalgudi alone would account for 6,500 acres as it had many filter points.

V. Rajendran, Executive Engineer, Agricultural Engineering, said besides the transplanters owned by the department, private transplanters would be engaged for paddy transplantation. Tenders had been finalised and 62 private operators had been selected for the task. It would be completed within two weeks.

However, some farmers felt that all farmers might not get the benefit of transplantation cost as this component of kuruvai package would cover just 1,500 acres out of 7,500 acres. Hence, the government should come forward to extend the benefit to all farmers.

Mechanical planting to be taken up on 20,000 acres



A total of 20,000 acres of land will be brought under mechanical planting under the special 'kuruvai' package in the district during the current season.

The Agriculture Department has started making special arrangements for implementing the package, and 262 acres of land have already been covered under the scheme.

The department would offer a subsidy of Rs. 5 crore to these farmers at the rate of Rs.2, 500 an acre. Arrangements have also been made for the supply of micro nutrient to 72,000 acres at the rate of Rs. 315 an acre.

Free gypsum would be supplied to farmers to raise the crop on 15,000 acres for which a sum of Rs. 90 lakh has been allocated under the package.

The State government has sanctioned Rs.2.38 crore for ploughing and growing pulses in 14,000 acres of land where 'kuruvai' could not be raised in the Vennar belt due to the depletion of groundwater. A sum of Rs.70 lakh had been allocated for ploughing the fields at the rate of Rs. 500 an acre and Rs.1.68 crore for distribution of seeds. If pulses could not be raised, green manure could be cultivated on cluster basis in these villages.

S.Palanisamy, District Collector, said that 91.45 tonnes of seeds have been stocked at various godowns for being supplied to farmers.

Now, advanced equipment to boost grape production

From now on, farmers need not bother about pruning and can decide on the yield well in advance, as the Grapes Research Station at Anaimalaiyanpatti

in Cumbum valley has got a microtome unit and stereo zoom microscope, an advanced equipment to identify cane maturity and formation of flowering in the buds, at a cost of Rs. 5 lakh.

This equipment would provide bud forecasting technique for grape growers, said Grapes Research Station Head S. Parthiban.

Two varieties of grapes – Muscat Hamburg or ‘Panneer Thraksha’, which is a black-seeded variety, and Thompson seedless, a green variety – had been ruling the State. Pruning was a very important practice in grapevine, which decided the yield and quality of the fruit. Usually pruning was done on 6-7th bud in Hamburg variety and 7-9th bud in Thompson seedless variety. Similarly, the number of fruiting bud might vary from one variety to another, he added.

Already, the Grapes Research Station had identified high-yielding varieties such as Red Globe, Medika, A 18-3, Sharad Seedless, Krishna Seedless, Nana Sahib Purple, Sonaka, 2 A Clone and Manik Chaman. Preliminary research results indicated that these varieties too could perform well under the conditions prevailing in the State. Some of these varieties were recommended to grape growers on the basis of suitability. Scope of exporting green and black seedless grapes to the Middle-East and European countries was tremendous, he added.

But farmers had to adopt viticulture practices in a scientific way in producing seedless grapes. Proper pruning was a must to get high yield and bud forecasting had to be done.

Microtome unit

To assist grape growers in pruning, the Grapes Research Station had bought the microtome unit for taking cross section of the buds and the stereo zoom microscope with image display unit for identifying cane maturity and formation of flowering primordia in the buds.

This bud forecasting techniques would be highly helpful in locating the exact number of buds for pruning in order to get higher yield. “We want to help farmers produce grapes fit for exports,” he added.

“Bio-pesticide, a better alternative”

In a bid to lessen the effects of harmful chemical fertilizers and pesticides on crops, the Agricultural College and Research Institute, Madurai is promoting ‘Integrated Pest Management’ (IPM) which provides farmers with alternative natural options to chemicals.

Addressing farmers in the district during a recent meeting at the Collectorate, M. Kalyanasundaram, Head, Department of Agricultural Entomology stressed the importance of bio-pesticides and insecticides as viable natural options.

“Bio-insecticides which comprise of naturally available parasites, predators and beneficial pathogens can be identified and let into the fields where they will keep pests away. Chemical insecticides should be used only as a last resort,” he said.

Mr. Kalyanasundaram further said that while the district did not use excess chemical pesticides, the farmers should be made aware of giving specific waiting time after they used pesticides on their crops.

“There should be a specific time given before they bring their produce to the market since bringing the crops early would mean that the residual content of chemicals is still very high on the produce. We have carried out research on the same and given farmers lists pertaining to the ‘waiting time’ for different crops which should be followed,” he said.

In the district, there are six Self Help Groups (SHGs) which are involved in the mass culturing of bio-insecticides comprising beneficial pathogens and predators.

As alternatives, the faculty from the department of Agricultural Entomology have also recommended the use of neem oil, neem cake, pungam oil and other plant-based extracts on produce which are harvested and to be sold off.

Farmers in the district however said that despite extensive research being carried out, such practices had to be implemented properly.

“Chemical insecticides should be used only as a last resort”

New harbour, boon to fishermen



The fishermen of Nagapattinam area will heave a sigh of relief once the construction of the fishing harbour at Keechankuppam near here is completed.

At present, the small old harbour, belonging to the Maritime Board, is being utilised for the purpose of landing and anchoring the boats. As the space is quite insufficient, the Fisheries Department took up the work on the sprawling space of Keechankuppam where the work is being executed at an estimate of Rs.45 crore under the World Bank-funded Emergency Tsunami Rehabilitation Package (ETRP) scheme.

The harbour, on the backwaters of the Kaduvaiaru, runs to a cumulative length of 750 metres -- 250 metres on the north and 500 metres on the south.

While the construction of the harbour on the northern side had been completed and boats are being anchored there, dredging on the southern side has been in progress, according to sources. As many as 750 boats can be anchored in this area, at the rate of a metre for each boat.

The fishing harbour would have a slew of infrastructure associated with fishing. It would have a state-of-the-art sheds for mending the fishing nets, washing the fish-crates, generator room and other essential services.

Road, street lights facilitating access to the harbour would be provided in course of time, the official said.

The construction of the harbour would bring about a great relief to not only the fishermen of the town but also the Maritime Board which has planned to utilise the space for this purpose. Although one of the contractors who had taken up the work was delaying the execution, the Fisheries Department had utilised the services of a dealer for marketing the produce.

A cross section of Nagapattinam fishermen point out that the harbour would facilitate not only easy landing but also proper maintenance of the boats.

N. Rajappa and S. Mahalingam said fishermen found it difficult to maintain their boats during the ban period due to inadequate space at the old fishing harbour.

They had to incur a huge expenditure for the transit of boats from the waters to the sand area by incurring enormous expenditure.

The new modern harbour would be a big boon to them throughout the year, they said.

Special drive for eradication of 'karuvelam' trees planned



DEMANDS OF FARMERS

- Special initiative for the **eradication of 'karuvelam' trees**
- Increasing the minimum support **price for paddy**
- Filling up the vacancies of **veterinary doctors' posts** in the veterinary dispensaries and hospitals
- Removal of encroachment** from water bodies
- Suspension of distraint** proceedings announced by the housing cooperative societies against the farmers

The infographic features a silhouette of a farmer carrying a bundle on their shoulder and holding a tool, set against a background of birds and a sun.

The district administration has chalked out a special programme for the eradication of 'karuvelam' (babool) trees, which caused much harm to the eco-system and environment, from the water bodies and in the rural areas.

Responding to the issue raised by A.R. Shanmugam, a progressive farmer of Panamarathupatti, at the farmers' grievances day meeting held here,

K. Maharabushanam, District Collector, said that he had already held discussion with the panchayat and town panchayat heads on the total eradication of 'karuvelam' and they have accepted to render their cooperation to this project.

The local bodies will provide all the needed help and manpower for the anti-karuvelam campaign.

Farmers possessing equipment should come forward to give the same for the removal of the 'karuvelam' trees, the Collector said.

If the farmers are ready for this, the Collector said that he will again convene a meeting of the officials, farmers and panchayat heads soon.

"We will form special committees for monitoring the job of eradication of 'karuvelam' and the whole effort could be a joint initiative", the Collector said.

Representatives of various farmers associations instantly announced their support for the programme, following which the Collector announced that the meeting for the formation of committees will be held next week itself.

C. Vaiyapuri, president of the United Farmers Association – Tamil Nadu, raised the issue of illegal tapping of groundwater from the dry river beds of rivers Sarabanga and Vasishtanadhi using pump sets by vested interests.

Many villages on the banks of these river are reeling under severe drought conditions and tapping the groundwater illegally that too for the interior rain-fed areas was totally unacceptable, he said. Mr. Vaiyapuri called upon the authorities to initiate stringent action the violators.

The power connection to the pump sets should be severed at once, he added.

The Collector directed the TANGEDCO authorities to seize all the unauthorised pump sets.

He also directed S. Jayachandran, Revenue Divisional Officer, Attur, to conduct a survey on the banks of the rivers and present a report to him.

Mr. Shanmugam raised the issue of the minimum support price for paddy announced by the Centre recently.

The Centre has raised the minimum support price by just Rs. 50 per quintal (from Rs. 1,360 to Rs. 1,410).

The hike is very paltry. The hike of fifty paise per kg will not benefit the farmers in any way, he said and pleaded with the Centre to further hike the minimum support price. Mr. Vaiyapuri and other farmers, too, supported him.

N. Perumal, president, Salem District Farmers Association, said that the housing cooperative societies have announced distraint proceedings against the defaulting farmers.

The Collector should direct the societies to suspend the distraint proceedings and provide more time to the farmers to repay the loan dues.

He also pleaded with the Collector to take steps for fixing reasonable price for tapioca.

K. Madeswaran, Assistant Meteorologist, India Meteorological Department, said that the district has experienced widespread summer rainfall.

Against the normal rainfall of 26.4 mm in the months of April, May and June, the district got 309.1 mm rainfall, he said.

Need to protect groundwater stressed

The groundwater level in the district is going down alarmingly causing much hardship to the government agencies and the common people and there is an urgent need to protect the available groundwater, said K. Maharabushanam, District Collector.

Borewells could not fetch water even after digging 1,500 – 1,800 feet. At this juncture, instead of going for new borewells, effective steps should be

initiated for protecting the existing ones to save the available water, the Collector said while delivering his inaugural address at a two-day training programme on 'aquifer information and groundwater management through participatory approach' held at the Periyar University here on Thursday.

The training programme was organised jointly by the Central Ground Water Board (CGWB) of South Eastern Coastal Region (SECR), Chennai, under the Union Ministry of Water Resources, Rajiv Gandhi National Ground Water Training and Research Institute, Raipur, and the Department of Geology of Periyar University.

Mr. Maharabushanam said that the rainwater harvesting structures and protection of water bodies by deepening and raising their bunds, the projects implemented by the State Government have proved successful in the district. The benefits of these schemes were informed to the public through various ways.

In the last couple of years, the district administration instead of going for new borewells to meet the drinking water demands, decided to protect the available water by desilting and renovating the existing open wells.

Of the 3,800 open wells available in the district, 700 were identified for the desilting work. This project proved a big success, with 500 wells becoming a perennial source of water in the rural areas ever since they were desilted. One particular well in Ayodhiyapattinam town is providing drinking water for five surrounding villages continuously, much to the delight of the local people, he said.

N. Varadaraj, former member, Central Ground Water Board, Faridabad, delivered key-note address.

Objective

A. Subburaj, Scientist D, and head of the office, CGWB, SERC, said that the main objective of the training programme was to disseminate the information about the aquifers, the need for aquifer, managing and protecting ground water for sustainability with people's participation.

R. Palnival, Dean, Periyar University, also spoke.

During the training, scientists and resource persons from CGWB and Periyar University gave technical lectures on aquifer mapping project of the country and capacity building.

About 200 representatives of farmers, personnel from various central and state government departments, other organisations, NGOs, academic institutions, students participated in the event.

Auction of sesame seeds fetches Rs. 60 lakh

Sesame seeds (*ellu*) was auctioned for Rs. 60 lakh at the Konganapuram branch of the Tiruchengode Agricultural Producers Marketing Cooperative Society near here on Saturday.

While white *ellu* fetched a price ranging between Rs. 75 and Rs. 85 a kg; the red *ellu* fetched a price between Rs. 55 and Rs. 66 a kg at the auction.

About 1,300 bags of *ellu* was auctioned for Rs. 60 lakh, according to the society sources.

About 1,000 bags of cotton was auctioned for Rs. 15 lakh on the occasion.

Cotton

While PT variety fetched a price between Rs. 3,400 and Rs. 3,700 a bag; DCH variety fetched a price between Rs. 3,900 and Rs. 4,400, the sources added.

Farmers unhappy over meagre hike in minimum support price for paddy

Various farmers associations have criticised the paltry increase in the minimum support price for paddy announced by the Centre recently and appealed for reasonable hike with immediate effect.

The meagre hike only proved the step-motherly treatment meted out to the agriculture sector by the Centre, they alleged.

A.R. Shanmugam, president of the Salem District Agricultural Production Committee, Panamarathupatti, said that the Centre a few days ago

announced the increase of Rs. 50 per quintal (from Rs. 1,360 to Rs. 1,410) in the minimum support price for paddy, which was very much unjustified.

The farmers had to invest much for procuring fertilizers and quality seeds. Farm labour had also become very scarce. Moreover, farmers suffered heavy loss regularly due to natural calamities.

Increasing the minimum support price for paddy by just 50 paise per kg would in no way benefit the farming community.

The meagre hike was a big disappointment, Mr. Shanmugam said and pleaded with the Government to hike the minimum support price by Rs. 500 per quintal.

The Tamil Nadu Vivasayigal Sangam affiliated to the Communist Party of India (CPI) too criticised the Centre's decision and said that it was nothing but 'betrayal of farmers'.

The prices of all farm inputs had gone up manifold and the farmers were expecting reasonable hike in the paddy support price, said R. P. Ramasamy, president of the Salem district unit of the Sangam.

The Centre should reconsider its decision and hike the support price to bring solace to the suffering farming community, he said.

C. Vaiyapuri, president of the United Farmers' Association – Tamil Nadu, said that the measly increase in minimum support price was a big disappointment.

Noted farm scientist M. S. Swaminathan recommended the fixation of the minimum price for agricultural produce based on the expenses incurred plus 50 per cent incentive.

The Government should implement Mr. Swaminathan's recommendation while fixing the price for paddy and other agricultural produce.

Mr. Vaiyapuri also pleaded with the Centre to fix the minimum support price for ordinary paddy at Rs. 2,500 per quintal, special grade at Rs. 3,000, dhal between Rs. 5,000 and Rs. 5,500 per quintal, millets between Rs. 2,000 and Rs. 2,500 per quintal and oil seeds between Rs. 4,000 and Rs. 5,000 per quintal.

‘Increasing the price by just 50 paise per kg will not benefit the farming community’

Farmer reaps rich with greenhouse technology



A farmer of Erakudi in Uppliyapuram block has shown the way in increasing cultivation using greenhouse. She has been cultivating 1,000 square metre area under the greenhouse concept.

N. Vijayasanthi, the farmer, had set up the greenhouse at an estimate of Rs.11 lakh which included a subsidy of Rs. 4.50 lakh. “It was a great opportunity for us in utilising the greenhouse concept with the cooperation of the Horticulture Department,” she says.

She said that the poly greenhouse has been enabling her to get more yield through good cultivation practices. “Free from pest attack, insects and diseases, the crop is well protected,” she said. She has cultivated tomato and planted 2,000 seedlings, with a duration of 70 days, in the house. She is confident of reaping at least one tonne in every three days once the crop is ready for harvest. “An assured market for tomato in the local area has been an encouraging factor for me,” she said.

Ms. Vijayasanthi said that the poly greenhouse has been facilitating a steady growth with an assured harvest. “Tomato is prone to damage during heavy rain but the greenhouse protects it from such loss,” she explains. Further, the growth of weeds is controlled to a great extent while economy is assured in using fertiliser.

The family members are involved in adopting latest technique. Her husband, N. Narendran, said crop rotation technique was the secret of their success. Before raising tomato, they had cultivated ‘kudamilagai’ – (capsium) both

red and yellow. “The shift to tomato is bound to enrich the texture of soil,” he said. They have planned to cultivate rose as the third crop.

Ensure quality in training programmes for poultry and dairy farmers, faculty told



Faculty members of veterinary colleges should ensure highest quality in their skill development training programmes meant for poultry and dairy farmers so as to enable the trainees to become successful entrepreneurs, S. Vijayakumar, Secretary, Department of Animal Husbandry, has said.

Addressing the inauguration of skill development programme for poultry farmers at Veterinary College and Research Institute, Ramaiyanpatti, on Saturday, Dr. Vijayakumar said the State Government, with the objective of imparting the skills required for successfully running any industry, established a separate body in 2011 and allotted adequate funds for conducting training and skill development programmes for the aspirants.

Those who underwent this training and skill development programmes either became entrepreneurs or employable in their industry, especially in the dairy and poultry units.

“Moreover, these trained workforce become experts in preventing or containing the diseases threatening the poultry birds and dairy animals. When avian influenza threatened Telengana and Kerala recently, no such incident happened in Tamil Nadu because of the veterinarians and the skilled workforce who had undergone skill development training programme being

offered by the TANUVAS. Had it spread to Tamil Nadu, it would have caused huge loss to our farmers as culling becomes inevitable,” Dr. Vijayakumar noted.

He said the State Government was spending Rs. 6,000 per head for imparting skill development training to each participant and urged the faculty members of the veterinary colleges to ensure quality in the programmes they were conducting.

The Secretary released a CD on the dairy mineral mixture of TANUVAS which is being given to milch animals to increase lactation and handed over country chicks hatched at VC and RI’s Ramaiyanpatti complex hatchery to a few farmers.

He also released the training module handbook meant for the dairy and poultry farmers.

Are Bidar farmers ditching soyabean?

Bidar may lose the distinction of being the largest soyabean-growing district, thanks to the sudden rise in the price of green gram and black gram.

Soya and sugarcane are the only major cash crops grown in Bidar district. Last year, the oil seed was grown on 1.15 lakh hectare. But now, the area is shrinking and it may not cross 95,000 hectares, farm scientists say.

“Of all crops, soyabean witnessed the most rapid growth in the district,” Ravi Deshmukh, head of the Krishi Vigyan Kendra, said. “We introduced the crop in 2003-04 by motivating farmers to sow it on around 50 hectares.”

The crop has had a steady price range in the wholesale market due to the constant demand from the food processing industry, according to him. This year, however, green gram and black gram are fetching Rs. 8,000 per quintal. “Green gram and black gram crops were badly affected last year first due to hail storms and then prolonged dry spells. This has pushed up their prices,” C.R. Konda of the agriculture research station said.

However, it does not seem like the Bidar farmer has completely lost interest in soya, for its seeds are still in demand.

The Agricultural Department has sold around 15,000 quintals in just ten days this season.

Over 300 facilitators recruited to act as a link between farmers and department

The Agriculture Department has recruited over 300 agriculture facilitators to act as a link between farmers and the department during the kharif season.

The facilitators would ensure that all farmers get micro-nutrients, such as gypsum, zinc sulphate and organic manure like vermin compost, and use them in their fields compulsorily to get better yield and to protect the soil fertility.

They would also enlighten farmers about different government schemes for the benefit of farmers and help them get their benefits.

They would also organise meetings at the village-level and the hobli-level and would invite agriculture scientists and officers to provide information to farmers about scientific cultivation.

The department has set up over 265 warehouses across the district and stored micro-nutrients to be distributed to farmers through facilitators. The facilitators would co-ordinate with the Raitha Samparka Kendras in providing seeds, fertilizer and information on agriculture.

The facilitators would work for 180 days and they would be given an honorarium of Rs. 175 per day.

Those who have passed SSLC and have agriculture knowledge have been appointed as the facilitators.

M. Mahanteshappa, Joint Director of Agriculture, told *The Hindu* that the facilitators had been given 10 days of training and they were also taught to be courteous with farmers and about organising meetings with farmers and agriculture officers and scientists. Mr. Mahanteshappa said that the facilitators were given field demonstrations about various crop diseases like bacterial leaf blight, blast, stem borer, neck blast and the facilitators would identify if any crop was affected by any of these disease and inform the department. The department would take remedial measures to control the diseases apart from guiding the farmers.

Mr. Mahanteshappa added that the facilitators would also guide the farmers about the adverse affects of excessive use of chemical fertilizers in their fields and they would promote the use of vermin compost.

They will ensure that farmers get micro-nutrients, such as gypsum, zinc sulphate, and organic manure like vermin compost

Mechanisation reaches Pokkali fields in Alappuzha

AThe district now has a new machinery to replant paddy seedlings in Pokkali fields.

It is for the first time that such mechanisation process has been introduced in the scheme of Pokkali farming in the State.

The machine, costing about Rs.2 lakh, was launched by District Collector N. Padmakumar at the Koorichal Pokkali fields at Eramalloor in Cherthala on Saturday. The replanting machine was developed by the scientists of rice research centre of Kerala Agricultural University, in association with a private company.

Replanting of seedlings is a labour-intensive process and availability of workers has been one of the major challenges faced by farmers. Pokkali rice in Kerala is considered organic and has got Geographical Indication (GI) certification. Pokkali fields stretch over the coastal areas of Alappuzha, Ernakulam and Thrissur districts in the State. Pokkali farming area in Kerala has come down from 25,000 acres to 5,000 hectares within the last 15 years owing to various problems faced by farmers, Francis Kalathngal, a Pokkali farmer and convenor of coordinating committee of Pokkali farmers, told *The Hindu* .

Pokkali fields do not require inorganic fertilizers or irrigation facilities set up by the government. As such, the government needs to support the farmers through providing subsidy on the machine so that it could be widely used, he said. Subsidies under certain schemes such as Gram Vikas Yojna are available from the Union and State governments, but are generally not disbursed on time, he added. The machine is an innovation pioneered by the scientists of rice research station, Ernakulam, said V. Sreekumar, professor and head of the centre, told *The Hindu* . Three years of experimentation has proved that it could be deployed in Pokkali fields characterised by loose sand and mud. It would take only one to one and a half hours to conduct the

replanting operations in one acre. The use of seeds could also be reduced by spreading the because of the optimum practices employed in replanting, he said.

Preparing the fields for the mechanized process is important, according to Mr. Kalathingal. Late arrival of monsoon is a problem confronting the farmer. Washing away the salt content in the field by the rains for a fortnight is important. The traditional way of 'broadcasting' for sowing the seeds involves wastage whereas mechanisation provides scope for optimum use of seeds. The distance between the plants could also be set conveniently for giving maximum harvest, he said.

It is for the first time that such mechanisation process has been introduced in the scheme of Pokkali farming in the State.

Processed jackfruit products with long shelf life unveiled



The Krishi Vigyan Kendra attached to the Indian Council of Agricultural Research at Thelliyoor near Thiruvalla is all set to launch five ready-to-cook and ready-to-eat jackfruit products from its State-sponsored primary processing hub.

The State Department of Agriculture has sanctioned Rs 52.55 lakh for setting up the primary processing hub at the ICAR-KVK campus at Thelliyoor.

The Krishi Vigyan Kendra (KVK) has standardised five primary processed jackfruit products, making use of available, cost-effective, dehydration technologies, according to C.P. Robert, KVK programme co-ordinator, and Shana Harshan, subject matter specialist.

Dr Robert said the primary processing hub has been established for jackfruit dehydration where KVK-trained entrepreneurs could join as incubates and do test trials and test marketing of the their products.

The five primary processed jackfruit products standardised by the KVK are dehydrated tender jack, dehydrated raw jack, dehydrated jack seed, dehydrated ripe bulbs and jackfruit preserve or bar.

Ms Shana Harshan told *The Hindu* that the technology products developed from jackfruit under this project has been brought into two registered brand names – ‘Eudora12’ and ‘Pollux7’ - which will be a torch-bearer for many upcoming entrepreneurs who are interested in commercialisation of jackfruit products.

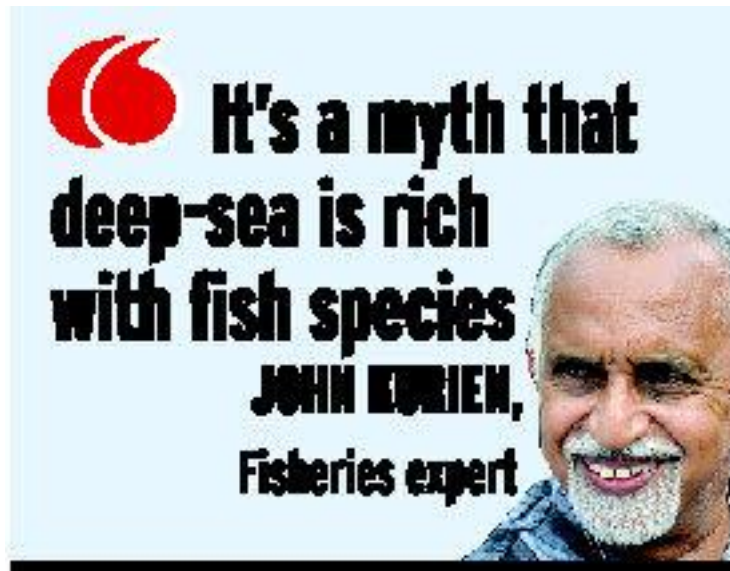
The dehydrated raw tender jack, raw jack, and jack seed coming under ‘Eudora12’ will have a shelf life of nine to 12 months while the dehydrated ripe bulbs and jackfruit preserve will have a shelf life of five to seven months.

Ms. Shana said the processes involved in dehydration of tender and raw jack will give an optimum quality product with good rehydration properties and it never requires use of any artificial food additives or preservatives. Ripe bulbs or chew can be an excellent dry fruit for the meal table. The preserve will help keep ripe fruit as such in sugar syrup or honey in a cost-effective manner. It was observed that the physical, chemical and nutrient properties of all products are superior, she said.

Dr Robert said KVK was particular in making use of indigenous technologies for standardisation of jackfruit which is available in plenty in rural Kerala and to make it a staple food.

The commissioning of the jackfruit processing hub and launching of ‘Eudora12’ and ‘Pollux7’ packed in attractive polyester laminated pouches will be held in July.

Small fishermen need encouragement: expert



Veteran fisheries expert John Kurien has advocated decentralised beach-based small-scale fisheries as the most effective social benefit with no financial support to improve the livelihood of thousands of traditional fishermen.

Former FAO advisor in Cambodia and Indonesia and a visiting professor at Azim Premji University, Mr. Kurien, who pioneered cooperative fisheries in Kerala, said in tropical sea, thousands of species were available. He mooted selective and seasonal fishing by providing data by various research institutes on how, what, and when to fish.

Encouraging small fishermen could only yield inclusive development, he told *The Hindu* during his two-day visit to the city recently. He said the tail-end ecosystem of the sea in India was now under threat.

Owing to changing beach morphology, huge constructions on the coast, indiscriminate use of plastic and discharge of industrial effluents into the sea were combination of factors which posed a grave threat to the livelihood of traditional fishermen.

He said India at present was producing 3.7 million tonne of marine fish of which the deep-sea fishing accounts for 60,000 to 70,000 tonne. Of the fish caught from deep-sea, 70 per cent was netted by traditional fishermen. “Hence it is a myth that deep-sea is rich with fish species,” he remarked. “The letter of permit vessels could catch only 3 per cent of total capture

from deep-sea. The recommendation to allow 270 foreign vessels under LoP route is not justified and based on wrong calculations,” the expert said.



NSSO to survey industrial firms in 420 villages

The National Sample Survey Organization (NSSO) will conduct a survey of unincorporated non-agricultural enterprises across 420 villages in 13 districts of western Tamil Nadu from July this year till June 30 2016, said deputy director general of NSSO G Sivasubramanian on Wednesday.

The districts include, Coimbatore, the Nilgiris, Erode, Tiruppur, Salem, Namakkal, Dharmapuri, Trichy, Pudukkottai, Perambalur, Karur and Ariyalur.

Addressing a press conference here, Sivasubramanian said similar surveys would be conducted by the NSSO office in Chennai for North Tamil Nadu and Madurai office for South Tamil Nadu.

The NSSO functions under the Union ministry of statistics and programme implementation and conducts a survey to identify unincorporated non-agricultural enterprises every five years.

The previous survey was held in 2010-11 and its findings revealed that Tamil Nadu stood at the fifth position with 44.67 unincorporated non-agricultural enterprises.

The gross value addition (GVA) by these enterprises was Rs 65,439 crore, which is 10.41% of the total GVA in 2010-11.

For the survey in 2015-16, NSSO is organizing a training between June 17 and 19.

A total of 110 data collectors and officials of NSSO will participate along with five from the Tamil Nadu government. The data collectors and officials allocated for Coimbatore will cover villages in Coimbatore, Tiruppur and

Nilgiris region. The training will focus on the methodology of collecting data and the approach that data collectors need to follow while asking questions to the enterprises.

A total of Rs100 crore was invested by the Centre to conduct the sample survey. The target set by NSSO is 32 enterprises for every village, which means that at least 13,440 enterprises in Western Tamil Nadu will be accounted.

Mid-June sowing report paints a gloomy picture

The kharif sowing in the district till June 19 was a dismal 0.6% — the lowest among eight divisions in the state. If a good rainfall on Sunday extends to a few more days, the statistics may change for good.

The state agricultural department data revealed that kharif sowing in the state has been completed on 8.60 lakh hectare area out of 143 lakh hectare, which is just 6%. However, the condition is still better than last year when only 3% sowing could be done till June 26.

Till June 19, sowing has been done only on 0.04 lakh hectare out of 7.33 lakh hectare area in Pune division.

A state agriculture department official told TOI that most parts of the state receive good rainfall by June 7 during most years — barring the years of 2014 and 2015. "Though conditions are different each year, rainfall would usually be good in June three to four years back. Even pre-season showers were satisfactory then. However, this year there was very little pre-season rainfall. Even the monsoon rain has been heavy in some districts and scanty in others. For instance, Mumbai receiving heavy showers in the last couple of days will not benefit sowing as there are no agricultural lands in and around Mumbai," the official said.

"Till June 19, one block in Pune division received around 0 to 25% rainfall (as compared to the average or normal rainfall), two other blocks received 25% to 50% rainfall, 11 blocks got 50% to 75% rainfall, nine more blocks received 75% to 100% rainfall while 16 blocks here received more than 100% rainfall. However, we expect sowing status to improve in the division in the coming days as the India Meteorological Department (IMD) has forecast heavy showers Monday onwards," the official said.

In comparison, sowing in other divisions of the state has been much better. For instance, in Nashik division, the average area under kharif comes to 20.47 lakh hectare and sowing has been completed on 1.41 lakh hectare or 7% till Friday.

In Kolhapur, 13% sowing has been completed till June 19 while 20% sowing has been done in Aurangabad. Latur (5%) Amravati and Nagpur (3% each) lag behind.

State to fund food scheme

As the Centre delinked support to National Mission on Food Processing from the current financial year, the state government will continue the scheme from its own resources, keeping in mind the vast scope in food processing industries in the state.

At a recent meeting on fate of the mission, chief secretary G C Pati advised the micro, small and medium enterprises (MSME) department, nodal agency in the state, to continue the scheme with a new name, Odisha Mission on Food Processing, for the next three years, official sources said. A proposal to this effect will be submitted before the chief minister Naveen Patnaik for approval.

"There is a huge potential for processing dal, milk, fish, fruits, vegetables and species. Seeing the good response of the entrepreneurs and banks on establishment of food processing industries in the state, the government has decided to continue the scheme," said MSME secretary Panchanan Dash.

After launch of the scheme in 2013, the state mission director on food processing had observed that Odisha has huge potential to promote rice, dal and wheat processing units. Odisha depends on other states for dal and wheat products.

During the last three years, Rs 237 crore was invested under the scheme in setting up of food processing units on tamarind paste, pasta, dal, milk, prawn, rice bran oil, spices and flour, the sources said.

The scheme was implemented with the funding pattern of 75:25 between the Centre and the state. The state is planning to arrange funds for the mission

from Rashtriya Krishi Vikas Yojana and State Agriculture Policy, Dash said.

Sow cotton seeds now in Maha: CICR

Considering the difference in status of monsoon in different states, the Central Institute for Cotton Research (CICR) has come up with a district specific advisory for sowing of cotton across the country. It has also prepared a general crop health management plan for the 57 cotton growing districts.

"We have prepared the advisory after consolidating the rainfall and other weather information data obtained from the Indian Meteorological Department (IMD), the Accu Weather and the Skymet Weather sites. This helps us get a better picture of the future projections of the rainfall. The advisory prepared based on this information has worked well in the past too. But besides issuing instructions for sowing, the institute also issues general management practices advisory for farmers in different agro-climatic zones," said Keshav Kranthi, CICR director.

For Maharashtra, CICR has suggested immediate sowing in the coming week in Jalgaon, Yavatmal, Nanded, Amravati, Buldhana and Aurangabad districts in view of the prediction of a dry period from July 3 to 16. Crop sown in July in rainfed tracts is likely to face severe moisture stress.

For other nine cotton growing districts of Jalna, Parbhani, Beed, Wardha, Dhule, Washim, Nagpur and Chandrapur, which have already received adequate rainfall, the institute has suggested early maturing varieties or Bt-hybrids for immediate sowing in this week. Sowing in July is likely to expose young seedlings to possible rainfall deficits that are predicted in the second-third week of July.

In view of the predicted rainfall patterns this year, Bt-cotton hybrids may be sown at 90x30cm spacing in rain-fed regions. High density planting of non-Bt varieties should be done not later than July 25, at a spacing of 45x10 cm or 60x10 cm in light soils and 75x10 cm and 90x10 cm in medium or heavy irrigated soils.

Advisory for others states

Gujarat | Since continuous rains are expected all across Gujarat from June 27 to July 2, sowing should be completed all over for best results. Moderate rainfall is predicted from July 3-16 in Amerli, Bhavnagar, Jamnagar, Ahmedabad, Surendranagar, Vadodra, Rajkot, Bharuch, Patan, Sabarkantha, Mehsana districts and hence sowing in this week is suggested

Madhya Pradesh | Sowing can be taken now. Early sowing crucial for Dhar and Khandwa districts due to less rains in July

Punjab | Light showers can be expected by end of June and first week of July, hence early sown crop (Mid April to first week of May) will benefit from these showers. Neem based pesticides should be used and chemicals avoided

Rajasthan | Rains likely to continue till first week of July, hence sowing should be completed before end of June

Andhra Pradesh | Sowing can be delayed in rainfed regions

Telangana | Rain predicted on and off in July, will be unevenly distributed.

Early sowing advised in Adilabad district

Karnataka | In rain-fed area, sowing suggested immediately but in irrigated area Bt hybrids should be sown at the earliest

General management practices

* Using early maturing varieties or Bt-cotton hybrids, early sowing after receiving the first showers of 80mm rainfall, sowing on ridges especially in high density planting systems is most preferred in rainfed area

* Intercropping in high density non-Bt cotton varieties can be taken up with soybean, cowpea or blackgram in alternate rows at 45cm row to row and 10cm plant to plant.

* Intercropping in Bt hybrids can be taken up with soybean, cowpea or

blackgram as one row between two Bt hybrid rows

* Border rows (2-3 rows) of pigeonpea around cotton fields will prevent infestation of mealy bugs and serve as refugia.

* Farm yard manure, 5 to 10 t/ha or compost should be applied just after the first rain

* Use Azatobacter and PSB, 25g each/kg seed

* Foliar spray of magnesium sulphate, 2% urea followed by 2% DAP, to ensure proper Cry1Ac expression and also to reduce problems of leaf reddening. Sprays of 1% cobalt chloride and soil drenching with Bavistin 1% in the initial stage of wilt is useful

* For prevention of leaf reddening, spray 2% urea, 0.5% zinc sulphate and 0.2 %, boron, twice at interval of 15 days interval on 90 days old crop. State eyes top position in prawn export again

The success of the pilot farming of vannamei, an exotic shrimp, in the state's brackish water ecosystem, would make it easier to usher in a 'shrimp revolution' in the coming years, but regaining the top position in prawn export Kerala once had enjoyed might be difficult.

It was a container load of frozen shrimp sent through Cochin Port by a city-based exporter R Madhavan Nayar on August 3, 1953, that marked the beginning of the modern seafood exports in India. The Indian seafood industry which exported 9,83,756 tonnes worth more than Rs 30,000 crore in financial year 2013-14, had humble beginnings - the total exports in 1953 was a mere 13.26 tonnes.

"Kerala was the leading seafood producer in India, during the initial days. For more than a decade, the state continued in this position. The situation changed only in the 1970s," said Norbert Karikkasserry, national treasurer, Seafood Exporters Association of India (SEAI). "In prawns too Kerala held its lead position as the production was restricted mainly to the West coast, ranging from Maharashtra to Kerala. But, the current leader in prawns production is Andhra Pradesh," he added.

Prawns hold a cardinal place in the seafood exports of the country  during

first half of FY15, it accounted for 73.14% of the export earnings in USD and 39.73% in terms of quantity. And India topped the list of shrimp exporters to the US during calendar years 2013 and 2014, show figures from National Oceanographic and Atmospheric Administration of the US Government.

According to Karikkassery, it was the new aquaculture technologies that had brought out the sea change in the industry. According to the annual report of Marine Products Export Development Authority (MPEDA), Andhra Pradesh produced a whopping 2.10 lakh tonnes of Vannamei prawns (an exotic white variety, originally found in the Pacific Ocean) during financial year 2013 - 14, compared to 26,281 tonnes of Tamil Nadu, 6,326 tonnes of Gujarat, 3,291 tonnes of Maharashtra and 2,907 tonnes of Orissa. Kerala, hesitant to introduce this foreign species to the native waters, produced nothing.

Karikkassery said restrictions on the use of water bodies by the state government is hindering the growth of prawn farming in the state. "We have thousands of acres of pokkali rice fields in Vypeen ❖ Ezhikkara ❖ Kadamakkudy area. However, the government allows aquaculture only for six months annually, stopping the farmers investing in it. Aquaculture is a long-term investment which needs round the year care," he said.

Israeli scientist developed a breakthrough technology

An Israeli scientist working from a laboratory in the Israeli desert of Negev has developed a breakthrough technology which could impart a significant impact on the revenues of the freshwater prawn (scampi) farmers in the salubrious lake districts of Kerala.

Amir Sagi, a professor at Ben Gurion University of the Negev has developed the technology to grow all-male freshwater prawn population, which could grow three times larger than the female ones over a six month period. Marine Products Export Development Authority (MPEDA) had been working closely with Sagi in introducing this technology among farmers in major prawn farming states of India.

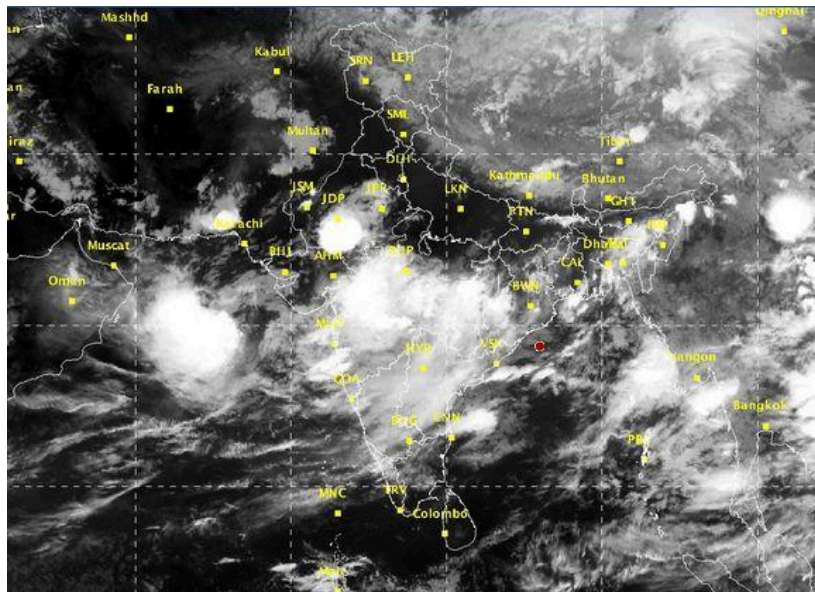
According to Sagi, the most important aspect of the technology is that it is not genetically modified. "Totally normal technology, but producing only male prawns that was the concept," he said.

"During 2006 we started working on the gene and then by 2007 we discovered the new technology. Initially we used scampi from Israel. Then we started working on three best different prawn lines of India - Gujarat, West Bengal and Kerala. We are working with Rajiv Gandhi Centre for Aquaculture (RGCA) and MPEDA and have found that the scampi from West Bengal and Kerala are the best in the country," Sagi said. Apart from India, China, Vietnam and Myanmar are currently using Sagi's technology to boost their productivity.

Sagi and his team are now working on a similar technology to be used for brackishwater prawns. "For the seawater prawns, the females grow faster than males, hence you need to develop all-female technology. We are currently working on that, which will be ready sometime in the future," he said.

THE HINDU BusinessLine

Arabian Sea erupts a second time; will keep monsoon in full cry this week



The Arabian Sea system will dump heavy rain over Gujarat and south-west Rajasthan, and may be guided to move across the border

The monsoon is set to maintain its momentum this week, with the Arabian Sea rustling up activity yet again after hoisting cyclone 'Ashobaa' earlier this month.

A low-pressure area has materialised off the Gujarat coast and is poised to intensify, threatening another round of heavy to very heavy rain over the neighbourhood.

Towards the other end, a prevailing monsoon depression has crossed the south Odisha coast and is parked over Sambalpur, spraying heavy rain all around east India.

The Met Department says the depression will start weakening during the next 24 hours, only because the 'low' off Gujarat will scale up.

The two form part of a single extended trough over central India; the dynamics are such that one system can hope to grow only at the cost of the other.

Global models suggest that the Bay depression now over Sambalpur would 'blink first' in the instant case.

Another depression?

This would allow the Arabian Sea system to intensify despite being close to the coast. In normal times, a system can hope grow to peak strength only when it is located out into the sea.

But here it would be able to grow possibly as a depression on the sheer strength of the monsoon flows, according to the European Centre for Medium-Range Weather Forecasts.

The US Climate Prediction Centre is of the view that the existing depression over Sambalpur would drive monsoon easterlies in a west-northwest direction, pushing rain into north-west India.

The Arabian Sea system will dump heavy rain over Gujarat and south-west Rajasthan, and may be guided to move across the border.

In this manner, the monsoon may manage to cover the entire Indian landmass over the next eight days.

India to ask US for 15 months time to lift poultry ban



WTO appellate body rules that New Delhi's ban was not based on relevant global standard or scientific assessment

India will ask the US for 15 months time to implement the World Trade Organisation (WTO) decision against its ban on poultry products from that country. This is the maximum time allowed under the WTO for implementation of a dispute ruling, but can be fixed only with the permission of the country that won the case.

“We allowed the US 15 months to implement the WTO verdict against countervailing duties imposed by it against Indian steel. We expect it to be equally generous towards us,” a Commerce Ministry official told *BusinessLine*.

It is important for India to get as much time as possible for implementing the decision because the move is expected to result in a flood of cheap chicken legs from the US which will hit the domestic poultry industry.

Official discussions between India and the US on implementation of the ruling will take place in Geneva soon.

Earlier this year, the WTO's appellate body, which is the top decision making authority of the organisation, had ruled in favour of a WTO panel's decision that had said that India's ban on poultry products from the US due to fears of avian influenza (bird flu) were not based on relevant international

standard or on a scientific risk assessment. India's animal husbandry department has to now come up with a notification withdrawing the ban.

Poultry organisations have now been asked by the Government to examine other science-based reasons, including the genetically modified feed given to chicken in the US and the long-time effects of such poultry being put in the deep freezer, to see if other restrictions could be imposed.

India's over four lakh poultry farmers, producing about 3.5 million tonnes of chicken every year, could lose up to 40 per cent of their market once the US products start flowing in, according to industry estimates.

Govt plans to expand Vannamei shrimp farming

Kerala can now look forward in Vannamei shrimp culture with the successful culmination of the trial farming of this most-sought species in the overseas markets.

The first of its kind harvest carried out by Kerala University of Fisheries and Ocean Studies (KUFOS) here has proved a success, achieving a better growth rate and 85 per cent survival of the species.

KUFOS had started the trial farming of Vannamei shrimp in four ponds at its regional station in Puthuvypen in March. The objective was to develop a model farming system for this particular brackish water ecosystem. As part of this, 40,000 specific pathogen free (SPF) seeds of Vannamei shrimp were released into one pond in an area of 1,000 square metre.

After 94 days of farming, a catch of 650 kg was harvested from one pond itself. The trial farming also proved that 5.5 to six tonnes of Vannamei could be produced from one hectare, earning a profit of ₹14 lakh. This newly developed farming model is particularly suitable to the conditions of Pokkali fields.

Kerala Fisheries Minister, K.Babu, who participated in the harvest festival, said that the trial farming proved that this white leg shrimp can be cultured successfully in the State's brackish water ecosystem and the pilot culture would make it easier to usher in a 'Vannamei revolution' in the coming years.

The newly developed Vannamei shrimp farming model will be extended to other parts of the State, he said adding that the government would utilise the highly prospective inland water resources and Pokkali fields for its farming to boost aquaculture production.

According to fishery experts, many of the states like Andhra Pradesh, Orissa, Tamil Nadu took advantage of the introduction of Vannamei in their culture basket of shrimp more than six years back. However, Kerala was far behind even though the State emerged as a model in shrimp farming in the past.

Business Standard

Cashew prices rise 33% this season

Hudhud cyclone and a few other reasons were responsible for lower production this time



Cashew nuts and kernel prices have increased 33-35 per cent during the current season in the Palasa market due to shortage of nuts and also led by higher demand owing to Ramzan.

Last year , local nuts were available at Rs 80 per kg when the season started but this year, they are priced at Rs 105-110. Accordingly, kernel prices have also increased to Rs 600 per kg for high-grade and Rs 250 per kg for low-grade as against Rs 450-460 and Rs 175 respectively last year, said Malla Srinivasa Rao, president, Palasa Cashew Manufacturers Association, and chairman, Agricultural Market Committee-Palasa.

Hudhud cyclone and a few other reasons were responsible for lower production this time. Moreover, imported nuts prices too are not attractive. Hence, domestic prices have increased abnormally, he added.

Due to low availability of domestic nuts, cashew units, which have a processing capacity of about 500 tonnes a day, are buying them even at higher prices, he stated. Though imported nuts are available in sufficient quantities, the kernel productivity is 10-15 per cent lower compared with domestic nuts. Besides, imported nuts prices have increased 25 per cent over last year's.

According to him, about 10,000 workers depend on this industry in the Palasa area. Unit operators have agreed to enhance the wages at 15 per cent for men workers and 19 per cent for women workers, for the next two years. This will result in an additional burden of Rs 5-6 lakh a day on the unit owners, Rao stated.