

24-08-2015

# THE HINDU

**Over 2,000 people participate in 'Green Marathon'**



Participants at 'Green Marathon' with the theme 'Energy Conservation and Environmental Awareness' organised by the Agricultural Engineering College and Research Institute at Tamil Nadu Agricultural University in Coimbatore on Sunday. — Photo: M. Periasamy

More than 2,000 boys, girls, men and women made a healthy decision on Sunday morning by participating in the marathon the Tamil Nadu Agricultural University had conducted. Showing the green flag for their decision was the University Vice-Chancellor K. Ramasamy at the stadium.

The 1,200 boys (less than 18 years old) from various schools were the first among the participants to run.

## **Awareness**

The fourth year B.Tech. Energy and Environment Engineering students had organised the Ecofest marathon to create awareness on energy and environment-related issues, said R. Mahendran, Assistant Professor, Bio Energy.

In the men (over 18 years of age) category, 400 persons participated.

In the women (over 18 years of age) category, 100 participated.

In the girls (less than 18 years old) category 350 persons had participated.

Venkatesh Ramakrishnan, a third year engineering student, said that he participated in the marathon to reply to his elder brother who teased saying he would not be able to complete the nine km run.

“His taunt kept me going till the finish line,” he said and added that the larger picture, of course, was to run for environment.

S. Darshini, a class X student, said that she participated to experience a marathon. And, the absence of special class only helped.

The men runners started from the university stadium, passed through Periasamy Road, D.B. Road, Cowley Brown Road, Thadagam Road, Alagesan Road, Venkitapuram, Saibaba Colony and returned to the starting point to complete nine km.

Those who ran for seven and five km did not touch Venkitapuram and Saibaba Colony, said Mr. Mahendran, adding that the runners had to pass through rope points to collect threads and present the same at the finish line so as to ensure that they ran on the right path.

### **Drinking water**

At the rope points the university had placed its volunteers. It also stationed them at five places to provide drinking water.

On the marathon pathway, the Coimbatore City Police regulated traffic and guided the runners.

The university honoured first prize winners Rs. 4,000 and certificates, second prize winners with Rs. 3,000 and certificates and third prize winners with Rs. 2,000 and certificates. Assistant Commissioner of Police R. Suresh Kumar, who was present at the start of the marathon, later gave away the prizes.

## **Tirupur farmers to get back-ended subsidy for mechanised transplantation of paddy**

*To increase productivity and improve profit margins*

To help paddy farmers increase yield and improve profit margins, the Department of Agriculture is set to extend back-ended subsidy for raising paddy over an expanse of 1,300 hectares using mechanised transplantation methodology.

“This is the first time that the mechanised transplantation method is to be used in a large commercial scale in Tirupur district,” Joint Director of Agriculture R. Kanagasabai told *The Hindu* .

### **Areas identified**

The acreage identified for the project falls under Kangayam, Vellakoil, Udumalpet, Madathukulam and Dharapuram blocks. In mechanised transplantation method, the saplings are first raised in mat nurseries adjacent to the respective main fields and then re-planted in main area using mechanised transplanter.

Mr. Kanagasabai said that the method could reduce labour requirements considerably, apart from ensuring correct spacing between the seedlings.

### **Weed management**

“By giving adequate spacing, instead of cluttering the field with saplings as done in traditional manual method, there will be at least 25 per cent more yield from unit area vis-à-vis conventional method. Weed management will be easier,” he added.

Agriculture officials also pointed out that the spacing pattern followed in mechanised transplantation method means very less quantity of seeds need to be used.

“It is found that just 8 kg of seeds are needed for one hectare when mechanised transplantation mode is adopted whereas 60 kg of seeds are required in the older method,” pointed out Mr. Kanagasabhai.

Another advantage cited is that optimum-age seedlings can be transplanted into the main field to get maximum productivity.

Official sources said that Rs. 39 lakh has been allocated for Tirupur district as back-ended subsidy.

### **Onions in short supply at FPS**



The Delhi government may have announced the sale of onions in its 280 Fair Price Shops (FPS), however, in reality several of them are selling everything from grains to sugar but “onions”.

The FPS which Rukhsana runs at 37A, Laxmi SHG Narela, is operating without onions for a week now. “I had booked for supply of onions on August 17, but haven’t received any till now. 173 kg had arrived around August 12 which was sold out by August 14. I am selling wheat and sugar though,” she said.

Similar was the case with the FPS at Hari Nagar Ashram, Jungpura where Pawan Gupta had received the last stock on August 19. “There was a long queue in front of my shop by 9 a.m., whereas the opening time is 10 a.m. All the stock of over 200 kg got over in two days. I had ordered fresh stock, but people at the mandi informed that very few trucks have come. As a result, even when people come asking for onions, I am unable to provide them,” said Mr Gupta.

The one at Harkesh Nagar in Tughlakabad could sell onions at the subsidized rate of Rs 30 per kg only till 1 p.m. on Sunday. “We couldn’t sell onions in the second half which is from 3 p.m. to 7 p.m. The stock came at August 21 and lasted for three days. People are getting SMSs which informs them about the nearest fair price shop according to their residence. So, a lot of people turn up,” said Manjur Ahmad, owner of the shop.

The situation, however, is not the same in key constituencies. For example, fair price shops in Chief Minister Arvind Kejriwal’s New Delhi constituency, so far, have got minimum three batches of onions already.

Not just that, people there are even getting an extra kg of onion. “The order from the government is to sell maximum two kg of onions per person. I have sizeable stock as a supply of 279 kilos came today only,” said the owner of the FPS at P-183, Pijanji Village.

The fair price shops at Patparganj which is Deputy Chief Minister Manish Sisodia’s constituency too had adequate stocks of the essential kitchen commodity. The sellers too seem to have got the government’s latest directive right here.

“I am selling a kg of onion per person and there is no dearth of it. The stocks can last for two more days,” said Nimit Kumar Chauhan of the FPS at Pandav Nagar, Patparganj.

In order to bolster the supply in the Capital, Delhi Food and Civil Supplies Minister Asim Ahmed Khan on Sunday sought Union Agriculture Ministry’s help to supplement its stocks of the edible bulb in the Capital.

In a letter to Union Minister Radha Mohan Singh, Mr. Khan said that unseasonal rains which partially destroyed onion crops have led to shortage in the wholesale markets at Lasalgaon, Nasik (Maharashtra).

### **Turmeric auction fetches Rs. 1.30 crore**

Turmeric was auctioned for Rs. 1.30 crore at the Tiruchengode Agricultural Producers Cooperative Marketing Society here on Saturday.

While ‘virali’ turmeric variety fetched between between Rs. 6,089 and Rs. 8,580 per quintal; the ‘kilangu’ variety fetched a price between Rs. 5,525 and Rs. 7,489 per quintal; and the ‘panakali’ variety fetched a price between Rs. 6,999 and Rs. 16,919.

More than 2,500 quintal of turmeric was auctioned for Rs. 1.30 crore on the occasion, the society sources said.

Coconut kernels were auctioned for Rs. 5 lakh at the Mallasamudram branch of the Tiruchengode Agricultural Producers Cooperative Marketing Society on Saturday.

### **Kernels**

First quality kernels fetched a price between Rs. 66.05 and 76.65 per bag, second quality kernels fetched a price between Rs. 43.65 and Rs. 55.65. About 150 bags of kernels were auctioned for Rs. 5 lakh, the society sources said.

At the Konganapuram branch of the society, about 3,000 bags of cotton was auctioned for Rs. 50 lakh on Saturday. While 'surabi' cotton fetched a price between Rs. 4,500 and Rs. 5,900; RCH variety fetched a price between Rs. 4,000 and Rs. 4,590 per bag.

About 50 bags of 'ellu' were auctioned for Rs. 2 lakh at the Konganapuram branch.

### **A-farming, we will go**



My daughter came back from school and eagerly filled me in on a wonderful interactive programme at school called Be a #Farmdost.

The students were given a short, but effective, lecture on the importance of the agricultural sector and a kit to start their own little farms. The kit consisted of a packet of seeds and instructions on how to grow them. My daughter got spinach and lady's finger while others had spinach and cluster beans. The instructions were very detailed and precise. The students were also encouraged to think about the different kinds of containers in which they could grow their plants. "Don't go and buy pots," they were told. "Look around your house; you can use an old broken bucket, tin can, mud pot ... Just make holes at the bottom for drainage." And the school's recycling lesson was reiterated.

The 'Be a #Farmdost' kit not only consists of seeds and compost mixture but also a very important message to both the parent and the student. The #Farmdost representatives also want the kids to share this activity with relatives and friends. It could be a wonderful way for families to bond and together they could spread the message that we should be proud of our farmers. They are every bit as important as any other professional in the service industry, if not more so.



The first phase has been launched in Tiruchi, Madurai ,Coimbatore and Chennai. The #Farmdost Facebook page has over 1,00,000 fans. Each stage of growth from shoot to mature plant has to also be clearly documented through photographs. There are rules and regulations for how these pictures should be presented.

This will be judged as an ongoing competition. A healthy and friendly competition among schools adds to the excitement of growing their own plants.

The school that uploads the maximum number of pictures and has the most number of enthusiastic little farm hands will find a special mention. There are different categories of awards (see box).

The #thank you farmers award is what I like best. This involves students visiting a farmer in their area and acknowledging them in an innovative manner.

Giving thanks could be a home-cooked meal for the farmer, spending an hour with them in their environment or maybe even writing a verse in appreciation of their hard work.

The most innovative gesture will be highlighted. This is the great way to teach them to appreciate the farmers' contribution to their lives. The good news is that the #Farmdost is not just for students. Anyone who is willing to contribute can be a Farmdost. You can order your own free Farmdost kit and get started on your own farm. At every stage, you can upload pictures and videos of your progress and share it on social media by hashtagging Farmdost.

The idea is to bring about “a paradigm shift in the way the urban society looks at farmers and engages with them”. It will include outreach programmes that will tackle different needs of the agricultural sector and how the general population can work towards meeting them. The #Farmdost initiative is committed to putting the ‘pride’ back into farming.

### ***Awards galore***

***#ThankYouFarmers Awards:*** Three awards from each city for individual students who have met three farmers and thanked them with the most innovative gesture

***Best #FarmDost Student contest:*** Three individual awards for participants in each city

***Best #FarmDost School Awards:*** Top three schools in each city with the highest percentage of participation in the Best #FarmDost Student contest

***#ThankYouFarmers School Awards:*** Top three schools in each city with the highest percentage of participation in the #ThankYouFarmers Student contest

***Champion of Champions Award:*** One school will be selected based on the overall participation percentage in all the activities among the four cities.

More details on [www.farmdost.com](http://www.farmdost.com)

## When farming and software meet



*Pradeep P.S., a young software engineer is making a difference for his local community and for the farmers with his e-commerce vegetable portal*

Pradeep P.S. makes one wonder what one was doing at 24. With a website that sells vegetables, this 24-year-old software engineer is working hard at making a difference for his local community of vegetable farmers at Kadambode in Mattathoor panchayat near Thrissur.

His website [www.farmerzfz.com](http://www.farmerzfz.com) makes accessible locally produced vegetables and helps farmers in the bargain. Started a month back, the website has close to 50 regular customers at Infopark to whom he supplies around 130 to 160 kg of vegetables per week, sourced from a network of 28 farmers in and around Kadambode. Starting today, for the next two days, fresh produce will be on sale at a temporary stall put up at the Walkway Roundabout near Vismaya in Infopark.

The idea germinated when, a couple of years back, his father's younger brother decided to quit vegetable farming and lease his agricultural land to others. "That is when I found out about the losses suffered by vegetable farmers. Locally there is no value for home produce, sellers prefer vegetables brought from other States which are cheaper and have longer shelf life."

According to him, when a local farmer takes his produce to the wholesale market, he doesn't get a fair price since there are cheaper vegetables from outside the State. However, when there is a glut due to excess supply, prices are cut and the farmer gets nothing in return, making farming unfeasible.

He pondered about this for two years. In the meanwhile he landed a job at the Infopark-based Fingent Technology Solutions Private Limited and started saving money with an eye on helping the farmers back home. He is grateful to his employers for their support; every week he takes a day's leave on loss of pay to facilitate bringing the vegetables to the city.

More than four months ago, he changed his desktop screen with an image of a man climbing a mountain with a banner announcing 'I Can, I Will... Watch Me'. And set about working on his idea. "Rather than attempt something I couldn't, this is something I can. I

write software and I know the ABCD of farming, combining both seemed like a good idea.” When his colleagues and friends at Infopark evinced an interest in buying produce from Kadambode, the idea crystallised. And the website came to be.

It lists the vegetables available, the quantities as also the fertilisers and pesticides used. “The fertilisers used are the ones used traditionally such as potassium and urea; we do not use heavy duty pesticides either. I don’t claim these are organic, but I can say that they are not harmful. Turning organic instantly is not feasible though some farmers have shown interest and it is something we are looking at in the future,” he says.

The number of farmers supplying to him grew from 17 to the present figure. He pays farmers the asking rate based on the day’s wholesale rate. “I would like to pay support price for all the vegetables but I cannot afford it right now. However, I did pay for snake gourd.”

The farmers he contacted were game but his family wasn’t keen. “Not just my family, but also one of the farmers I contacted dissuaded me. They are familiar with how risky vegetable farming is and they didn’t want me burning my fingers.” Even his friends ridiculed him, since being an engineer he was messing his hands in the soil.

Today, the entire family pitches in – be it sourcing the vegetables, sorting, packing and transporting. In the packing he conscientiously avoids plastic. His family comprises his father, Shajan S. Babu, an ex-serviceman; mother Susheela who is a teacher and an older brother Sudeesh. His cousin, Ajay Sankar and his uncle, Ambujakshan also chip in with the work besides his friends, George Thomas, Arun Paul, Jinoop Nair and Binu Baby. His uncle, Salish Kumar, provided the van used for delivering the vegetables. On weekends, Pradeep helps his father with their farming on three and a half acres of land.

For the Onam stall he has roped in a local Kudumbashree unit to provide chips and pickles. “I want to involve the local community in its entirety and take the people forward with me. I would like to take this effort to the next level and involve more people from across the State. I have limitations, but then neither was Rome built in a day. I want to get youth interested in farming, and I want to get respect for the farmer and make agriculture feasible for them.”

*I want to involve the local community in its entirety and take the people forward with me*

### **Salem district to hold tripartite talks**

The farming community in general and the tapioca farmers in particular have welcomed the decision of the district administration to convene a tripartite meeting to fix reasonable price for tapioca during next month.

The tapioca farmers have been complaining about the poor price being offered by the sago units since last year. At each and every opportunity available, the farmers



representatives have been demanding convening of tri-partite talks for fixing reasonable price.

The farmers were taken by surprise when R. P. Rajendran, PA to Collector-Agriculture, said that the Collector V. Sampath has decided to convene tripartite talks by September 10 next.

The farmers' representatives thanked the Collector for conceding the demand.

K. Sundaram, General Secretary of the Tamizhaga Vivasayigal Sangam, said that Salem region has the highest productivity of tapioca in the world. Tapioca produced in different parts of the state are brought to the sago factories functioning in Salem and Namakkal districts for processing into starch and sago.

Hailing the decision of convening the tri-partite meeting, Mr. Sundaram thanked the Collector V. Sampath for the same.

He expressed the hope that meeting will bring solace the entire farming community.

K. A. Govindasamy, president of the Tamil Nadu Tapioca Farmers Association affiliated to CPI, also welcomed the decision of the district administration.

Despite repeated pleas, the district administration did not evince any interest in convening the tri-partite talks last year, due to which the farmers suffered heavy loss.

### **Operation Adukkala packs quite a punch**



An organic vegetable orchard in Kakkanad. The farmers in the district will be given around 2 lakh growbags under Operation Adukkala to ensure that safe-to-eat vegetables are available to customers even after Onam.

People are ready to pay a premium and farmers can confidently take up farming in the healthy way.

Ernakulam's ambitions to join the club of organic districts in the State has received a big boost with more than 5,000 farmer groups joining *Operation Adukkala*, a joint initiative of the district administration, department of agriculture and Greater Cochin Development Authority (GCDA) to increase the production of organically grown vegetables.

The combine of farmers will be given around 2 lakh growbags under the initiative to ensure that safe-to-eat, if not certified organic vegetables, are available to customers even after Onam, said GCDA chairman K. Venugopal on Sunday.

He said training programmes were under way for the registered farmer groups with the help of Krishi Vigyan Kendra, Ernakulam.

"People have woken up to the importance of organic farming," said award-winning farmer Henry Suro, who is a veteran in the field referring to his experience at the ongoing organic vegetable fair at Marine Drive.

"People are ready to pay a premium and farmers can confidently take up farming in the healthy way," he said.

Organically grown vegetable cowpea was selling for Rs.60 a kg while ginger was quite dear at Rs.140 a kg. Pumpkin and cucumbers were selling for Rs.30 a kg. Banana (nendran) was selling for Rs.50 a kg while various rice varieties were also being sold for a premium.

The rice varieties included Palakkadan matta, Njavara, Chomala from Wayanad and the Ponni variety, he said.

Meanwhile, Palliakkal Service Cooperative Bank will open around a hundred shops in the district to sell vegetable produces from about 100 acres under its initiative.

The society's secretary M.P. Vijayan said the demand for organically grown vegetables was soaring and the customers had no problems with the premium being charged for the produces.

The district secretary of the CPI(M), P. Rajeev, said a total of 164 shops would be opened ahead of Onam to sell organically grown vegetables. The party initiative had resulted in production of about 1,600 tonnes of vegetables, he said.

***People are ready to pay a premium and farmers can confidently take up farming in the healthy way.***

### **Skilled farm workers unit formed**

Predicting a sunny prospect for the organic farming ventures, the total number of *Karshika Karma Sena* - the panchayat-level army of labourers skilled in various farming activities- has reached six in the district.

The latest one in the group is from Moodadi, where 25 workers, including women, have enrolled under the scheme to take up agriculture works.

An officials attached to the Agriculture Department said the number would be increased further following a direction in this regard from the State government. “As part of the farm mechanisation drives, these groups would be provided with all the basic farm machines for their work,” he said.

### **Six groups**

As per the current provision, each of the six groups would get agriculture machines worth Rs.9 lakh for various farming purposes.

Members of the Karma Sena would be given full freedom to select the machines they wanted to cater to the local requirements.

Under the scheme, the labourers’ collective would be able to purchase even costly machines such as combine harvesters, tractors and tillers. The local panchayats too would be allowed to pool their local development fund and further strengthen the labourers’ collective by supplying them more tools for farming purposes.

“Already basic training has been given to all the members in the farmers’ army and they are capable of operating almost all important farm equipment for fast service delivery,” said V. Ravi, a member of the group.

He also said that the group members would also be trained further by the agriculture department for the successful marketing of various organic products.

### **Technology intervention helps**

*More important development is the raising of sugarcane through germination and not supplanting stems of the harvested cane*



A third generation farmer explaining the successful technology adopted in his seed farm.— PHOTO: A. Muralitharan

rappling with challenges posed by labour shortage, frequent pest attack, low yield and quality deficiency in farming till 2011, J. Nagarajan, a farmer, has found a solution

finally. Thanks to technology intervention by the ICAR-funded Krishi Vigyan Kendra run by Centre for Rural Education and Economic Development (CREED) at Cholamadevi in Ariyalur district, Tamil Nadu. He has overcome these challenges and multiplied his farm income, besides inspiring those who have left their villages for greener pastures to return to agriculture.

Belonging to Kandira Theertham Mettu Theru village in Ariyalur district of Tamil Nadu, this third generation farmer raises sugarcane, paddy and vegetables through mixed farming. He also has a seed farm, which supplies paddy, black gram and sesame seeds to farmers and the Department of Agriculture. He meets the irrigation needs through a solar-powered motor. Thus, the transformation of his farm is wholesome with technology infusion minimising manpower deployment.

On the harvest front, his sugarcane yield ranges from 90 to 100 tonnes per acre. “Earlier, it used to be around 60 tonnes. CREED-KVK advised me to switch to Sustainable Sugarcane Initiative and adopt new fertigation techniques. Now, I raise Coimbatore-Sirugamani 7 variety, which has almost doubled the yield. The total sugar content has also improved from around 12 per cent to 13.5 per cent,” says Mr. Nagarajan.

But the more important development is the raising of sugarcane through germination and not supplanting stems of the harvested cane, points out Y. Raja Joslin, Programme Coordinator (in charge), CREED-KVK. About three tonnes of sugarcane per acre is lost when stumps are used for raising a new crop. His seed farm adopts ‘pro tray technique’ that involves growing of seedlings in tray filled with coco pith.

The buds in sugarcane nodes are removed using a cutter and planted in coco pith mixed with micro nutrients. Neem oil is used as pesticide to ward off harmful pests.

Mr. Nagarajan is also involved in making jaggery and plans to start a unit to sell bottled sugarcane juice. Inspired by his success, people employed in other fields are returning to their villages to take up farming in and around Tirumanur.

Elsewhere, at Devamangalam village of Jayamkondam taluk of Ariyalur district, K. Chinnappa, retired secretary of a Primary Cooperative Agricultural Society, has ensured a sustained monthly income by raising tuberose with the assistance of CREED-KVK.

He adopts polythene mulching technique, which sustains moisture and prevents water loss, besides aiding growth of micro organisms, and sprinklers in his farm to raise groundnut, black gram and tuberose. Marigold is raised as an inter crop in tuberose.

He grows a hybrid variety provided by the Indian Institute of Horticultural Research as frontline demonstration for Ariyalur district, according to A. Rajkala, Subject Specialist, CREED-KVK.

“This tuberose variety is pest-resistant and provides a better yield than native breeds. My daily off take ranges from 15 to 76 kg. The harvested flower is sent to the Kumbakonam market. I plan to increase my daily income by raising tuberose in an adjacent area also,” says Mr. Chinnappa.

For more details, contact ICAR KVK, CREED, Cholamadevi, Udayarpalayam Taluk, Ariyalur District, 612902.

### **Farmers urged to adopt crop rotation, water saving techniques**



G. Viswanathan, Chancellor of VIT, C. Rajendran, Joint Secretary, Agriculture Department, G.V. Selvam, Vice-President, VIT, at the inaugural function of the two-day Agricultural Expo in Vellore on Saturday. -PHOTO: V. M. MANINATHAN

Farmers should take to crop rotation and water saving technologies in order to protect soil wealth and tide over water scarcity, C. Rajendran, Joint Secretary, Agriculture Department said on Saturday.

Speaking at the inaugural function of the two-day Agri Expo organised jointly by the Centre for Sustainable Rural Development and Research Education (CSR & RE) of the VIT University, Vellore, Tamil Nadu Agricultural University (TNAU) and the National Bank for Agriculture and Rural Development (NABARD) at the VIT campus here on Saturday, Mr. Rajendran said that soil health has been affected badly here.

He explained that it is because of the practice of farmers cultivating the same crop year after year.

#### **Need for soil test**

The farmers should also conduct soil test before taking up cultivation. The Department of Agriculture has tested 80 lakh soil samples and given appropriate advice to the farmers in the last four years, he said. The Joint Secretary said that in view of the chronic water scarcity faced by the farmers in Tamil Nadu, they should adopt water-saving technologies and cultivate alternative crops which required less water.

He appealed to farmers to make use of the market intelligence network of the Agriculture Department which sent out SMS alerts on market-related information. The department has sent out four crore SMS alerts to the farmers on market intelligence in the last four years, he said.

#### **Plea for implementing River Link Project**



G. Viswanathan, Chancellor of VIT University who presided wanted the Government of India to expedite the implementation of the river link project envisaging the linking of 37 rivers and the construction of 3000 storage areas along the way.

A total of 130 tmc of water from 10 rivers including the Cauvery was being wasted into the sea. If the water wasting into the sea from Godavari, Krishna and Cauvery Rivers could be diverted, it would solve the water problem of Tamil Nadu, Andhra Pradesh and Karnataka.

The three governments should join hands to take up the river link project, he said.

H. Philip, Director, Extension Education, TNAU, Coimbatore said that in the light of the declining income from agriculture due to various reasons, farmers should convert agriculture into an industry in order to increase their income.

They should resort to the making of value-added products such as banana biscuits in order to make agriculture remunerative, he said.

K. V. Rao, Chief General Manager, NABARD, Chennai said that NABARD encouraged the formation of Joint Liability Groups (JLGs) to enable farmers to come together and take loans. It has fixed a target of 40,000 JLGs this year.

G.V. Selvam, Vice-President, VIT said that steps should be taken to address water shortage and labour shortage in agriculture.

S. Tamil Maran, Project Officer, Centre for Sustainable Rural Development and Research Education, VIT welcomed the gathering.

*‘If the water let into the sea from Godavari, Krishna and Cauvery Rivers could be diverted, it would solve the water problem of Tamil Nadu, Andhra Pradesh and Karnataka.’*

### **Kudumbasree unit scripts a success story**



Hard and dedicated work has won laurels for Samrudhi, a Kudumasree unit from Madakkathara. It has been chosen for the award best agriculture operations among Kudumbasree units in Thrissur district.

Samrudhi’s success story began three years ago when an MoU was signed between the district authorities of Kudumbasree and the Kerala Agricultural University (KAU) o

permit the 10-member unit to cultivate vegetables on a five-acre land of the university left unused on account of labour scarcity.

The agreement was reached after prolonged discussions between KAU Director of Extension P.V.Balachandran and Kudumbasree Executive Director K.B.Valsalkumari. With the support of KAU Vice Chancellor P.Rajendran, the MoU was transformed into an action plan.

The plan was executed well by the 10 women under the supervision of T.E George, Head, Department of Olericulture. Sarah T. George and Indira extended technical support..

The Samrudhi group planted vegetables — traditional varieties such as chilli, okra, amaranthus, brinjal, bittergourd as well as cool season varieties such as cabbage and cauliflower. They cultivated the vegetables even on road medians, backyards of office buildings and hostels. The result was amazing, as the annual income exceeded Rs.2 lakh in all the three years.

“We used not only the seeds form KAU, but every bit of advice given to us,” said Sheela Mohan , leader of the group. “We were guided to use organic practices and scientific packages and even modern techniques such as precision farming,” she said.

### **Farmers cultivate ‘Kozhi kondai poo’**



The demand for the flowers registers a peak during the marriage seasons. A scene of a farm at Azhagiya Manavalam near Tiruchi.

A number of farmers in and around Azhagiya Manavalam near Tiruchi are busy cultivating “kozhi kondai poo” which brings an assured return to them:

## Kerala kitchens leave out small onions



The price of big onions has crossed Rs.60 a kg in the retail market and the big question is what has happened to small onions or shallots, which used to be the preferred choice for cooking in Kerala households until recently.

Though small onions came at a premium until recently, the price factor is not to be blamed for the way they have almost been shunted out of our kitchens.

Small onions were being sold for Rs.38 a kg in the retail market this week.

The most important reason why big onions are now preferred over the small ones is the ease of handling them. There is not much labour involved in peeling and slicing big onions, while it is time-consuming to peel small onions, says Nimmy Paul, a teacher of cooking who describes herself as a fan of small onions.

Another reason why big onions are preferred is that they are easy to make gravy with.

People love to have a lot of gravy when they cook, for instance, meat or vegetables.

As a result, tomato and big onions which were not essentials in our meals until recently have become a great hit.

Corporate chef Jose Varkey does not agree that the significance and use of small onions had diminished in restaurants. They are used to temper dishes and no Kerala dish is complete without the use of small onions, he said. Usha, a homemaker, says peeling small onions is quite time-consuming though she conceded that she had not totally abandoned its use at home.

Both big and small onions are cool season vegetables and there is virtually no commercial cultivation of both in Kerala, says C. Narayanankutty of Kerala Agricultural University. The supplies of big onions mostly come from Nasik areas in Maharashtra, while small onions come from Tamil Nadu.

***Price rise and Malayali's love for gravy have pushed these bulbs out of homes***

## Spread of fairs in the run-up to Onam



With Onam just round the corner, the city has become venue to several fairs with each providing a wide range of mostly traditional products.

With increased awareness among people on the health hazards of pesticide-contaminated products, organically grown vegetables have become an integral part of the Onam fairs.

The annual Onam mela of rural products, organised by the Poverty Alleviation Unit (PAU) of the district panchayat under the Integrated Rural Development Programme (IRDPP), got under way on Saturday. K. Muraleedharan, MLA, inaugurated the fair at the LMS Ground in Palayam.

The fair has nearly 150 stalls with the district panchayat and the 11 block panchayats in the district participating in the programme. It will continue until August 26. A unique feature of this year's edition is the participation of the Jackfruit Promotion Council that is aimed at popularising value-added products made of the fruit.

A large range of food products includes readymade snacks such as banana chips, jackfruit chips, and vadas, all prepared by Kudumbasree units from various parts of the district. Fresh fish is also being offered at the fair at a stall set by the Anjuthengu grama panchayat.

Earthen vessels in different shapes and sizes, manufactured by self-help groups, have been displayed at the mela. Handicrafts and handloom products have also been kept for sale at the fair.

According to PAU project director George Jacob, self help groups and joint liability groups have been selected as participants. The proceeds obtained from the sale will go entirely to the participating groups with the organisers charging nothing for setting-up stalls.

The Onam Trade Fair, which has been organised by the Canara Bank on the premises of its Circle Office near the Spencer junction, had organic vegetables and fruits as its prime attraction. Vegetables such as beans, ash gourd, ladies finger and amaranth were displayed at the fair by the Sanghamaithri Farmers' Producer Company, a Pallichal-based collective of 6,500 farmers.

According to R. Balachandran Nair, chairman of the Sanghamaithri, the farmers' produce were sold at prices that were far cheaper than what was sold in the open markets. George Mathew, Divisional Officer, Agricultural Finance Division, Canara Bank, said the 26 groups including Kudumbasree units were identified for this year's Onam fair. The five-day fair was launched by Mariamma Oommen, wife of Chief Minister Oommen Chandy, on Saturday.

### **Water level increases in Mettur**

Following continuous downpour in the catchment areas of Cauvery in Karnataka, there has been steady increase in the inflow into Mettur Dam.

#### **Inflow**

The inflow that was 15,427 cusecs on Friday, rose to 16,568 cusecs on Saturday morning.

The water level in the dam rose to 91.39 feet on Saturday against its full level of 120 feet.

#### **Discharge**

The discharge from the dam is 13,500 cusecs, PWD sources said. Due to the release of surplus water from Karnataka dams, more than 16,000 cusecs of water is being received in Cauvery at Hogenekkal on Saturday evening, the sources said.

### **Free SMS weather alerts, updates**

The Indian Meteorological Department has launched 'NOWCAST', a free SMS service of providing alerts and updates on extreme weather conditions to registered farmers once in three hours round-the-clock.

The programme was introduced by the Union Agriculture Ministry in the country in June 2015.

Under the 'NOWCAST' free SMS service will be sent in regional languages, English and Hindi.

The department will cover the farmers who have already registered their names with 146 weather stations of the Indian Meteorological Department (IMD).



According to K. Madeswaran, Assistant Meteorologist here, the farmers should register their names with the Krishi Vigyan Kendra. The Department will inform the weather details such as maximum temperature, minimum temperature, humidity, rainfall, extreme weather conditions such as thunder, hailstorm etc.

The NOWCAST has immensely benefited the farmers and the Union Agriculture Ministry has proposed to cover more than one crore farmers under this programme.

Till now the India Meteorological Department was providing weather report and forecast to farmers for the next five days, once a day.

The farmers can also contact the toll-free number 1800 1801717 of the IMD for collecting all the weather related details district-wise.

### **Wonder plants**



A one-day training programme on ‘medicinal plants cultivation’ will be conducted by the by the Tamil Nadu Agricultural University Information and Training Centre on August 26, between 9.30 am and 4.30 pm.

Training certificates will be issued to all participants. Those interested can confirm participation at 2626 3484. TNAU is located at No.U-30, 10th Street, (Behind Jaigopal Garodia School),Anna Nagar.

For details call 2626 3484

***For details, call 2626 3484***

## One lakh saplings to be planted



An elaborate orientation on environment at Adarsh Matriculation Higher Secondary School on Saturday signalled the start of the ambitious initiative of Anthiyur-based Nature for Future Trust to plant one lakh bird cherry saplings.

The idea of the trust is to involve as many school students as possible to ensure biodiversity and conservation of agriculture, forest and urban eco systems, and ensuring bio productivity enhancement in agriculture and forest systems.

G. Kumaravelu, former Member, State Planning Commission, and chairman of the trust said that bird cherry saplings will be planted in 19 taluks spread over Erode, Karur, and Tiruppur districts. Mr. Kumaravelu who is a former Principal Chief Conservator of Forests, explained to about 100 coordinators of Eco Clubs in schools on the biodiversity bird cherry trees would lead to through resurrection and propagation of birds, butterflies, beetles, and bats.

The teachers were exhorted to motivate students to take sustained care of the saplings they plant. The requirement of every institution was determined for supply of the saplings, said former Chief Conservator of Forest, R.K. Bharathi, a trust member.

The trust has chosen this time of the year for the project, factoring in the high scope for survival of the saplings owing to the rainfall accruing from the North-East Monsoon.

Making people realise that human life is only one of the threads in the web of nature, and making them develop sympathy and empathy towards other life forms was a major desire of the trust, Mr. Kumaravelu said.

A compact disc containing an hour-long presentation of Mr. Kumaravelu on the future course ahead for environmental remediation was given to the participants.

The awareness programme was inaugurated by Geetha, coordinator, District Eco Clubs. Former director of School Education Devarajan, and correspondent of Adarsh Matriculation Higher Secondary School, Sivalingam, spoke.

### **‘Will give priority to opening fair price shops in remote areas’**

Vinay Kumar Sorake, Urban Development Minister, said on Saturday that priority would be given to opening fair price shops in remote areas of Udupi district. He was speaking at the Jana Mana interaction programme with beneficiaries of various government schemes, organised by the district administration here.

Responding to a question by Prakash Acharya from Kalya village, Mr. Sorake said that if there was demand from people in remote areas for a fair price shop, it would be opened in a place easily accessible to them. It was difficult for the people in remote areas to travel to fair price shops which were far away.

All efforts would be made to provide all essential items by the 10th of every month at the fair price shops. As a result, people need not visit these shops repeatedly to get essential items, he said.

Rajeshwari, another beneficiary, said that government should provide rice under the Anna Bhagya scheme at either Rs. 3 per kg or Rs. 5 per kg as this would benefit the agricultural sector in the long run, rather than giving it free of cost. Mr. Sorake said that there was an argument that providing rice free of cost would make people lazy but there were poor people who found it difficult to have a square meal a day. The intention of the scheme was to cater to such people. The larger objective was to make Karnataka a “hunger-free State,” he said.

Srilaxmi, a high school student, said that milk should be provided twice a day in schools under the Ksheera Bhagya scheme. Another student, Sumana Bhat, said that malt powder should be supplied along with milk so that it could be made tastier for the students. Mr. Sorake said that he would make these suggestions to the Chief Minister.

### **Better compensation**

Achutha Adiga, a farmer, said that wild animals including wild boars, wild oxen and monkeys were destroying agricultural and horticultural crops in the villages. The compensation given by the forest department for the destruction of crops was too meagre.

The farmers had been demanding licences for possessing rifles so that they could shoot bullets in the air to scare away wild animals. The government should provide insurance coverage for destruction of crops by wild animals, he said.

Mr. Sorake said that the farmers should take to erecting solar fencing to keep wild animals away. The government was providing 50 per cent subsidy for erection of solar fencing. He directed Deputy Commissioner R. Vishal to look into the issue of providing licences for rifles.

## **Drought casts shadow over aquaculture**

Drought conditions in the State have cast a shadow on aquaculture. Several fish tanks in Krishna, East and West Godavari districts have dried up following poor monsoon. Farmers raise shrimp and fish in thousands of acres in Krishna, East and West Godavari and Prakasam districts, thereby boosting the country's revenue through export of aqua products. Meanwhile, officials of the Marine Products Export Development Authority and the AP Fisheries Department have proposed to raise fish through cage culture in reservoirs.

In June this year, a team of officials from the Central Institute of Brackishwater Aquaculture, Rajiv Centre for Aquaculture (RGCA), MPEDA and the Fisheries Department had visited 18 reservoirs as part of the mission to raise Genetically Improved Farm Tilapia fish. "We visited reservoirs in Nellore, Prakasam and some other districts and submitted a report to the government. The Fisheries authorities, along with fishermen's cooperative societies, are now planning to take up cage culture in a big way," officials said. MPEDA Deputy Director (Aquaculture) S. Kandan said more than 70 reservoirs had been identified in AP for the cage culture project. Besides, Somasila and Kaligiri reservoirs in Nellore district were selected to execute the project.

*We had to drop the cage culture plans temporarily, as experts advised us not to go ahead in view of the drought*

*- S. Kandan,*

## **Farm fresh outlet, a bonanza for the poor: Minister**



The farm fresh vegetable outlet here proved to be a bonanza for the poor and the middle class people, said Minister for Tourism S.P. Shunmuganathan here on Sunday.

At the beginning of the second year of this outlet near the new bus stand here, the Minister paid a visit to it and took stock of proceedings.

Within a year after its launch, the State-owned outlet (Pannai Pasumai Nugarvor Kadai) recorded sale to the tune of over Rs. 5 crore – an all-time high for any such outlet in the State. Lauding the efforts of Collector M. Ravikumar, who presided over, the Minister said that he was keenly involved in achieving this success. This outlet earned a prize in



the State for its best functioning, he said, and thanked the officials. Such outlets were established to avoid middlemen, who were causing spiralling of costs of vegetables in open markets, and to benefit the farmers. Mayor A.P.R. Anthony Grace, president of Tuticorin Farm Producers Cooperative Store Manickaraja and officials from Department of Cooperation took part.

### **Life sweeter after giving up sugarcane cultivation**



Some farmers like Mohammad Jaffer of Chitta village in Bidar taluk, who have given up sugarcane cultivation and started growing papaya and vegetables, are doing well.

At a time when mounting dues by sugarcane factories is pushing growers to distress, some have decided to opt out of cultivation. Farmers such as Mohammad Jaffer of Chitta village in Bidar taluk are wiser for it.

“Even after getting 98 tonnes of sugarcane an acre, I could only save Rs. 15,000 an acre. But, now I am making 10 times that amount,” says Mr. Jaffer, who switched to vegetables.

“I grew sugarcane (variety S-62) for 10 years. I got yields up to 70–80 tonnes an acre. But the factories stopped buying that variety and asked us to grow the tall red variety. I took it as a challenge and began cultivation. I got such good yield that farm scientists visited my field. Despite that, I was getting between Rs. 800 to Rs. 1,500 a tonne. I was desperate and switched crops,” he said.

Regular interaction with scientists of the Krishi Vigyan Kendra helped him take up less labour intensive crops such as papaya, banana, and vegetables.

The 45-year-old farmer does not hire labourers. He and his wife manage the 12-acre farm.



They are joined by their five college- and school-going children.

The family has dug a large farm pond on half-an-acre land, abutting a check-dam that the Bidar Zilla Panchayat built across a seasonal stream.

All earth work is done by a mini-tractor that Mr. Jaffer bought six years ago.

He uses organic fertilizer.

The 20 bulls on the farm produce enough waste for compost. Mr. Jaffer also routinely sows sunn hemp seeds and ploughs the plants back as green manure. He has installed two lamps over the open well in the farm.

The light attracts insects that fall into the water and feed the fish. “I had released around 100 fingerlings into the well 10 years ago. Now the fish have multiplied by thousands,” he said.

“I am only doing what my father and forefathers were doing. Tell me what is new in that?” he says matter-of-factly.

*This farmer, with help from scientists of Krishi Vigyan Kendra, has taken up less labour intensive crops*



### **Basmati crop in Gurdaspur, Amritsar under pest threat**



The Basmati crop in Punjab is under threat from rice hispa — a pest that eats the leaves of the plant, exposing its epidermis as a broad white mark. It has been noticed in over a

dozen villages in Gurdaspur and Amritsar. The pest thrives in flooded fields. The monsoon and lack of efficient drainage has contributed to this. The state agriculture department has issued an advisory to farmers of the basmati crop to keep a close eye on their plants. Dr Amrik Singh, agriculture development officer at Gurdaspur, said that at least 100 acres has been affected. “Infestation varies from six to 65 per cent in the fields,” he said.

“Farmers in the state have been mindlessly applying fertilizers to their crops. This has affected the ecosystem in which the crops grow and has kept the rice hispa’s natural predators away,” said Dr Naresh Gulati, an agriculture development official.

An adult rice hispa looks like a small bluish-black beetle that has many short spines on its body. Its larvae is legless creamy white which is concealed inside the leaf tissue. “If the attack is in the nursery of the crop, the affected leaves should be cut off before the seedling is transplanted. On transplanted crops, farmers must spray 120 ml methyl parathion 50 EC or 560 ml monocrotophos 36 SL or 800 ml Ekalux 25 EC or one litre chloropyriphos in 100 liter of water,” said Dr Singh.

Farmer Piara Singh, numberdar of Magrala village, said the rain water hasn’t drained from the fields. This year, around 7 lakh hectares is under Basmati cultivation in the state.

### **Express Recipes: Super-yummy breakfast smoothies to start your day**



Smoothies are the newest everyday addition to our breakfast. I have found them the best way of including fruits and vegetables in our diet. And especially with children, they are a great way of ensuring they receive the essential nutrition as “smoothies look so much prettier than actual fruits!” That’s what my niece says.

Also it is so much fun to create a different smoothie everyday. The only equipment really needed is a blender and then it is you, your fruits and all the creativity.

Here's to a smooth beginning to the day.

### **Banana – Strawberry Smoothie**

Preparation Time: 10 mins | Serves 2

Banana – Strawberry Smoothie (Source: Ashima Goyal Siraj)

#### **Ingredients**

400ml cold skimmed milk (use 8-10 ice cubes if the milk is not cold)

2 bananas

12-15 strawberries

1tbsp honey

#### **Method**

- \* Roughly chop the bananas and strawberries
- \* Put them in the blender together with ice cubes (if using). Blend until smooth
- \* Add milk and honey. Blend together.
- \* Serve in tall glasses decorated with strawberries. Accompany with a bowl of fruits to make a complete breakfast.
- \* If you want a thicker consistency, use yoghurt (plain or flavoured such as vanilla or strawberry) instead of milk.

### **Banana – walnut Smoothie**

Preparation Time: 5 mins | Serves 2



Banana – walnut Smoothie (Source: Ashima Goyal Siraj)

### **Ingredients**

400ml cold low-fat yoghurt

2 bananas

1/4 cup walnuts

1 tbsp chia seeds

1tbsp honey

### **Method**

\* Roughly chop the bananas in cubes

\* Put in all the ingredients (other than chia seeds) together in the blender. Blend until smooth

\* Put chia seeds at the bottom of serving glasses. Pour in the banana walnut smoothie.

\* To make it more exciting for kids, garnish the smoothie with a few chocolate pieces.

*Food is never just food. I believe it's story telling, it's conversation. It brings people together and it speaks a universal language! I love to play around in my kitchen. The thrill of being able to create something new and sharing it with others is what fuels my passion for cooking. The fact that dear husband is a foodie and an honest critique helps! I blog about my adventures in the kitchen at <http://www.myweekendkitchen.in/>*

The logo for Hindustan Times, featuring the word "hindustantimes" in a bold, lowercase, sans-serif font. The "h" is black, and the "industantimes" part is blue.

### **As onions get dearer, Delhi writes to Centre to contain prices**

As prices of onions threaten to hit the Rs 100/kg mark, Delhi's food and civil supplies minister Asim Ahmed Khan sought the Union agriculture ministry's help to supplement the state's efforts for ensuring supply of onions to contain retail prices in the market.

Khan in a letter to the union minister Radha Mohan Singh wrote that unseasonal rains, which partially destroyed onion crops, led to shortage in wholesale markets in Maharashtra.

“There has been a recent trend in the upward movement of retail prices of onions and shortage has also been reported in the domestic market. To effectively deal with this crisis, the Delhi government has procured onions through small farmers agri-business consortium (SFAC) and all possible efforts are being made to supply good quality onions to the residents in the national capital at the subsidized price of Rs 30/kg,” Khan wrote in his letter.

The Delhi government has said that the Centre's support is required to supplement its efforts to ensure that price of onions is contained.

"Government of India may accordingly wish to impress upon the onion producing states like Maharashtra, Karnataka and Madhya Pradesh etc, to prevent hoarding and black marketing, which may help in increased availability of onions in Delhi," said Khan.



### **Delhi govt seeks Centre's help to prevent onion hoarding**

With no relief in sight over high price of onions, Delhi government has written to the Centre to request that it ensure no hoarding takes place.

On Sunday, food and civil supplies minister Asim Ahmed Khan wrote to union agriculture minister Radha Mohan Singh to prevent hoarding and black marketing of onions in states where it is being produced.

"There has been a recent rising trend in retail prices of onions and shortage has also been reported in the domestic market. In order to deal with this crisis, Delhi government has procured onions through Small Farmers Agri-Business Consortium and efforts are being made to supply good quality onions to residents at the subsidized price of Rs 30 per kg. The Centre may accordingly wish to impress upon the onion producing states like Maharashtra, Karnataka and Madhya Pradesh etc, to prevent hoarding and black marketing tendencies, which may help in increased availability of onions in Delhi," said Khan.

On Sunday, retail price of onion in Delhi ranged between Rs 60 per kg to Rs 80. Delhi Government continued to supply onions at Rs 30 per kg through mobile vans and fair price shops, though several consumers complained that the cheap stock was not available even by afternoon. Government sources said that this was due to panic buying against which it had taken out an advisory.

"We have in fact said that not more than one kg of the low priced onion be sold to an individual. Teams are going to wholesale markets to ensure that no hoarding takes place. The government is keeping a strict watch and will ensure a sufficient supply of onions in the market," said an official.



## Organic farming catching up in AP

At a time when agriculture has become unsustainable with meagre incomes, around 8 to 10 per cent of agriculturists in the state are now resorting to natural means of cultivation.

"The government doesn't encourage farmers to take up natural means because it would lose revenue from the seed, chemical fertilizer and pesticide companies. The policymakers are only interested in making money. It is high time they promoted organic farming," emphasised J Kumaraswami, state secretary of Bharatiya Kisan Sangh (BKS).

Thanks to low input costs, higher productivity, chemical-free yields and high nutritional values, many are opting for environmental-friendly farming. As per estimates, organic crops are being grown in 50,000-odd acres across the state. "The situation is changing slowly. The agriculture department must step in to propagate organic farming," Kumaraswami pointed out.

The major constituents of input costs are seeds, fertilizers and pesticides but in organic farming, there is no need for pesticides while the costs of preparing natural fertilizers are low. "Right from sowing seeds to the yield reaching the market, a farmer has to struggle at every step. Even after surpassing all hurdles, a farmer is incurring losses. This is because of the high input costs," said B Ramakrishnam Raju, state president of organic farmers' association 'Go Adhaarita Vyavasayadarula Sangham'.

"I have been using natural manure from cow and cultivating paddy. My input costs fell by as much as 40 per cent because of this," said Raju, who cultivates 28 acres in Unguturu mandal in West Godavari district.

Another advantage of natural farming is that fertility of the soil remains unaffected. "Natural methods increase the fertility of the soil. Therefore, I was able to cultivate paddy with lesser amounts of water, compared to earlier years," he explained.

A farmer from Kavatavaram in Krishna district, Seetaiah had taken up paddy cultivation using cow manure last year and said that he was able to cultivate more than 20 bags of yield with less input costs. Same is the case with other farmers in Krishna, Guntur, Anantapur, Nellore, Prakasam and Kadapa districts.

Agriculture officials admitted that the fertility of the soil and the quality of yield increase with organic farming. "It is a slow process, but has better results. Usage of organic manure enriches the soil potential and help develop its structure which is essential for quality output and healthy farming," a senior official said.

## Meet on advantages of 'natural' farming today

A state-level convention on organic farming will be inaugurated by union health minister JP Nadda at PWD Grounds here on Sunday. State ministers Devineni Uma Maheswara Rao and Prathipati Pulla Rao are also expected to be present at the event.

The organisers said the objective of the event is to promote and create awareness about natural farming amongst farmers in and around the state. "There are a lot of advantages in organic farming, especially as manure can be made from cow waste. However, many farmers do not know about its importance. This is the reason why we want to bring all farmers under one roof and tell them how natural techniques can make agriculture sustainable," said J Kumaraswami, state secretary of Bharatiya Kisan Sangh, who is also one of the organisers.

Kumaraswami pointed out that excessive use of pesticides and chemical fertilisers in farming is causing a rise in chemical content in crops. "We find that there is a lot of chemical content in the food we eat. This is because there is excessive use of chemicals in the various processes. In natural farming there is no use of chemicals. Hence, we can produce chemical-free products," he added.

Vallabhaneni Aasa Kiran, the proprietor of Village Organics Pvt Ltd, observed that farmers are not in a position to experiment. "As farming has become unsustainable, they don't want to take risks. But we urge them to start on a low key. If a farmer has five acres, he could start organic farming in one acre and see the difference. If he thinks it is sustainable, he could continue. The input cost is also very low," Kiran said.

Farmer leaders said that the fertility of the land increases with natural farming. They explained that regular use of chemicals on land affects the humus content in the soil. Hence the soil's productivity decreases.

Citing a personal example, state president of Go Aadharitha Prakruti Vyavasayadarula Sangham, B Ramakrisham Raju, said he is able to cultivate naturally on par with any farmer who uses chemicals.

Muthavarapu Muralikrishna, president (elect) of Andhra Pradesh Chambers of Commerce and Industry Federation, will preside over the convention. He recalled using organic food from 2011, and that the results were great. "We are what we eat. That is why we should promote natural food. As I have seen the changes personally, I am able to tell others about it. I urge everyone to try the food at least once to know the difference," he pointed out.

On the occasion, an expo will also be inaugurated for the public in which food made of millets and other organic material will be available. "A food court with natural food will also be opened for the public," the organisers said.

## **‘Centre wants to develop agri, horti sectors in NE’**

Union minister of state for home Kiren Rijiju on Friday laid the foundation of a postgraduate girls' hostel of the College of Horticulture and Forestry (CHF) at Pasighat in East Siang district.

Rijiju also visited the citrus nursery where virus-free, quality planting material was being produced and also inspected various locations where scientists and experts were working to develop technologies for the farmers of the NE region, a release said on Saturday.

Later, he attended an interactive programme 'mera gaon mera gaurav', with farmers and scientists at the CHF auditorium and launched a CAU farm magazine authored by Dr RC Shakywar, Dr A K Pandey and Dr B P Mishra. It was published by the directorate of extension education and technical bulletin on integrated disease management.

Rijiju said the Centre was committed to bringing faster development in agriculture, horticulture and forestry and people should come forward to avail the benefits to help the region prosper.

"Agriculture is the backbone of Indian economy and the NE region has an enormous scope to fulfill the basic needs of human beings. There are plain areas, fertile soil, long growing seasons and wide variation in climatic conditions in the region. With the introduction of modern technologies, the cropping pattern is changing and commercial and non-traditional varieties are gradually gaining popularity in line with domestic demands and export requirements," he added.

"The rise in agricultural activity will ensure lower public spending. Employment schemes and CHF have been consistently making innovative efforts by using science and technology to increase productions," added the minister.

Rijiju asserted that domestic and international tourists were showing interest to explore the natural beauty of the region and it will not only benefit the business community but will create more jobs.

## **WhatsApp: The other Kisan channel**



"Why should you, a farmer who owns land, think of killing yourself?" Yunus Khan's question on WhatsApp is rhetorical. An agri entrepreneur from Pusad district in Maharashtra, he is on an unusual WhatsApp group - 'Baliraja', a farmers' hub with over 400 members across the state. Its primary aim is to offer information and advice to farmers in need.

"We help each other," says Khan, an agriculture graduate who has been on the group for a year now. "Things like plant nutrition, soil problems, crop rotation and market prices are important for farmers. We discuss these on WhatsApp."

Sometimes, the messaging service can become an important support group. "We tried to stop 10 suicides across five villages by sending messages on the group," says Amol Sainwar, from Chandrapur village. Sainwar, who comes from an agricultural family, runs a charitable trust, HOPE, in the village which helps farmers find alternate employment in lean season.

Baliraja loosely translates to 'farmer king' in Marathi, but a farmer feels far from royal especially when his child is sick and he doesn't have the Rs 3,500 required for treatment. "He was on the verge of suicide. We could see he was helpless so we helped him find a job at a shop in his village via WhatsApp," says Sainwar.

Only a few small farmers own smartphones but each member of Baliraja stays in touch with 20-30 poor cultivators in the village. This ensures that their problems are communicated to the group.

Baliraja was founded over a year ago by Anil Bandawane, a farmer from Junnar near Pune. "I started the WhatsApp group to discuss foreign vegetables like broccoli, zucchini which are in demand in urban markets. But the biggest discussion is always about soil and the rain," says Bandawane. Initially, the group had 100 members, but the number has now grown to 400.

"The admin had to form three more groups - Baliraja Shakha No. 2, 3 and 4 - to accommodate the rush of farmers who were keen to join from all over the state," says Bandawane.

Counselling is key to the group since the government-run kisan call centres lack practical information, say the farmers. "We have to wait for days to hear from them. The farmer is mostly an illiterate person who only looks forward to the limited subsidy. They don't see the other options available to them and this leads to depression," says Khan, who also runs an agri clinic in Akola district to counsel farmers on how to drive a better bargain.

Farmers in Punjab and Haryana are also using WhatsApp but the emphasis there is on yield and technology. Harman Singh Randhawa, an orchardist from Hoshiarpur district of Punjab, uses it to connect to farmhands when he is travelling. "They send me photographs of disease or pests on crops if I am not around. I send them solutions in the form of

pictures of chemicals to tackle the problem," says Randhawa, the first farmer to successfully grow apples in Punjab.

Harpreet Singh, a farmer from Kalwehri village in Karnal district in Haryana, uses WhatsApp to contact agricultural scientists for solutions to disease and pests. Farmers who raise the same crop often join up on a WhatsApp group to swap information.

Raminder Singh Ghumman, a scientist at Punjab Agricultural University, Ludhiana, says he has created a group of about 25 farmers.

"I alert farmers about diseases and pest attack on different crops. I also send them information about various activities for farmers. For instance, I recently shared the dates of 'kisan melas' (farmer fairs) to be held in different areas so that farmers can attend these events," says Ghumman.

NGOs also find it easy to reach out to farmers through these groups. Reema Sathe of Happy Roots, a startup that helps build alternate income sources for small tribal farmers in India, is active on Baliraja. "Most farmers depend on a certain crop, but after six months of farming, the land lies bare. So we help them find options like organic poultry farming," she says.

The answer to the problems of the farmer do not lie with the government or the politician, says Khan. "We can help each other mentally and financially," he says.

### **Climate Action: India to spell out broad contour of its INDC on Monday; Prime Minister reviews the process**

India will on Monday throw some light on the broad contour of its upcoming 'climate action plan' which the country would submit to the UN body on climate change in September. Prime Minister Narendra Modi on Saturday discussed finer details of the plan with concerned officials and ministers and asked them to strictly adhere to the country's priorities including eradication of poverty and to enable energy access to all its deprived citizens.

The 'climate action plan' - called Intended Nationally Determined Contribution (INDC) in climate talks jargon - is the country's voluntary pledge which it will eventually take up as its post-2020 contribution to fight the global challenge of climate change.

Modi is learnt to have asked the officials and the environment minister Prakash Javadekar to focus equally on access to "affordable technology" and "adequate finance" in India's INDC so that the country's transition to low carbon growth becomes natural and easy.

Though India's 'climate action plan' will carry details of mitigation, adaptation, climate finance and transfer of technology, the focus is expected to be on seeking a global commitment to "support adaptation" to the growing impact of climate change.



"India contributions will factor in country's domestic obligations of addressing the basic development needs in terms of achieving minimum standards of living for its entire population", said an official.

Javadekar is expected to articulate the country's priorities and the processes involved in making of India's INDC on Monday. He may also spell out how India's national action could succeed only through a strong international partnership.

All countries are expected to submit their respective INDCs by October 1. These INDCs will form the basis of final negotiations for arriving at a global climate deal in Paris in December.

It is expected that India will take the 'energy efficiency' route of mitigation (emission cut) to deal with the threat of climate change where it may pledge to reduce the 'emission intensity' (carbon emission per unit of GDP) substantially by 2030.

At present, it has been on course to cut the 'emission intensity' by 20-25% from 2005 levels by 2020. It is learnt that the country would try to cut the emission intensity by minimum 35-40% from the 2005 levels by 2030.

Similarly on clean energy front, India's INDC may talk about enhancing its present target (175000 MW of renewable energy with an investment of more than \$150 billion by 2022) by almost double by 2030. Besides tapping solar, wind and bio-mass, the country will also talk about nuclear energy and seek international co-operation in this field.

India's INDC will also carry details of its ongoing efforts under its national\state action plan on climate change which includes works on increasing forest cover and adaptation efforts in agriculture. It may also mention the country's effort to promote natural way of living among people without wasting resources -- be it food, water or energy.

Total 56 countries have, so far, submitted their respective INDCs to the United Nations Framework Convention on Climate Change (UNFCCC). The list include the world's top three current polluters -- China, US, EU (28 nations) - and other countries like Switzerland, Norway, Canada, New Zealand, Singapore, Russia, South Korea, Australia and Mexico.

While the US promised to cut 26-28% of its emission from 2005 levels by 2025, the EU pledged for at least 40% cut from its 1990 levels by 2030. China, on the other hand, intends to peak emissions before 2030. It also promised to cut levels of 'carbon intensity' by 60-65% from its 2005 levels by 2030 and increase share of renewable and nuclear in its total energy mix to 20% by 2030.

## Techie quits job to pursue farming

For 30-year-old Suresh Babu, a software engineer, even an Australian citizenship could not stop him from becoming a farmer. With his heart and soul in farming, even though he earned well above 2.5lakh a month, he said he felt he was amiss. He immediately quit his job in 2013 and returned back to the cotton city and to farming. Even though he faced several obstacles, he overcame many of them doing research and using his technical knowhow.

Currently, he farms on a 10 acre land growing banana, coconut and areca nut. Apart from this, he also sends nearly 70litres of milk to the government dairy and sells some of his organic vegetables at the market.

"I am the fourth generation farmer in my family. I have seen my father and grandfather work really hard on the field. I was aware that this would not be an easy task. I wanted to ensure that my farm was not labour intensive but high in productivity," said Suresh.

He installed solar panels, learnt to make his own manure after visiting several universities in Karnataka and also took some tips from the Tamil Nadu Agricultural University.

"As software engineers, before a project is launched, the entire research and ground work is done. Similarly, I used my experience and first learned all the sustainable farming methods with focus on reducing labour," he said.

"When I was denied electricity by Tamil Nadu Generation and Distribution Corporation, I decided to set up solar panels and installed a 5HP panel. Seeing this, several families around Thondamuthur area set up solar panels in their farms," he said. Currently, he uses his mobile phone to switch on and switch off electricity in his farm.

He also has set up drip irrigation which can be monitored without being at the farm. He was recently awarded by the Kongu Nanbargal Sangam, a farmer's association in Chennai and also received an award in Coimbatore by another farming association for his farming practices. "The problem with the younger generations who enter into farming is that, they are not aware of several government subsidies and schemes," he said. Currently, his wife and relatives help him.

Even as child, Suresh would often help his father on the farm. "He would help us when he was free. I taught him everything my father taught me. While Suresh has gone organic, his family practices normal farming. He grows several hybrid varieties so his yield is higher than ours," said S Palanisamy, his father. Suresh completed his bachelor's in engineering in the city and went to Australia to complete his masters.

In 2011, he joined a software company there and worked for four years. He even got citizenship there and got a government job. "But I wasn't satisfied and happy. I felt I was missing out on something and when I realised it was farming, I immediately packed my bags and returned home," he said.

## Web drive to help farmers with weather forecast



Skymet, the nation's sole private weather forecaster, has started a social media campaign called #HelpTheFarmer, asking social media users to spread monsoon forecast to farmers who may not have access to the internet.

As part of the campaign, Skymet has also prepared a gut-wrenching video about farmer suicides that has received over a million views. So far, over 10,000 people have tweeted using the hashtag #HelpTheFarmer in two days. On Thursday, the hashtag was the top Indian trend for six hours, above other trends such as #FTII and #MulayamSinghYadav.

"A large part of India's agricultural produce comes from monsoon-fed crops. Each year, monsoon impacts crop production, price-control and industrial output as nearly 40% of raw materials also come from farming. But unusual weather patterns and aberrations lead to a myriad of problems for the country," an official statement from Skymet said.

Manav Singh Gehlaut, Skymet's chief of digital media, said, "Unlike the 1990s, it is much easier to share information about weather forecasts with the masses. Internet has changed the way information is disseminated.

We want to capitalize on that. Those who do not have access to the internet need a digital revolution. We need to acquaint them with the platform. Those who have access can also play their part. The aim behind #HelpTheFarmer is to let urban citizens know that they can spread the word by informing people around them about the forecast. If someone with access to the internet tells their gardener or driver, the information can reach someone in a far-off village. This can help them prepare for monsoon or lack thereof."

Gehlaut said short-term forecasts can help farmers and at least bring down the number of farmers' suicides. "A farmer in Madhya Pradesh was in constant touch with us about the weather and he kept asking us when he should sow his seeds. He followed the weather patterns online and made huge profits," he said.

Skymet also prepared a four-minute short film which follows the story of a young girl who was in constant fear that her father, a farmer, might commit suicide. "The video has over 1 million views on Facebook and another 50,000 on YouTube. Just planning ahead can help farmers exponentially. In a country where we are still working to improve our internet penetration, those with access can play a large role."

## THE HINDU BusinessLine

**Minimum export price of onion raised to \$700 a tonne; import tender opens Aug 27**



With onion prices continuing to be a worry for consumers, the Centre has raised the minimum export price (MEP) of the bulb to \$700 a tonne. The MEP was last increased on June 26 this year to \$425/tonne from \$250/tonne.

An official statement released by the Food and Consumer Affairs Ministry said that the tender floated for onion imports will be opened on August 27.

The government had directed MMTCL Ltd. to float a tender for the import of 10,000 tonnes of onions last week.

"The Government of India has been keeping a close watch on the rise in prices of onions. A decision has been taken ... to import onions and a tender has also been floated for 10,000 tonnes of onions which will be opened on 27th August, 2015," the statement said. "To increase the availability of onions in the domestic market, it has been decided to raise minimum export price further to \$700 per tonne," it added.

## **Inclement weather**

Prices of the kitchen staple have been rising due to a decline in production to 18.92 million tonnes (mt) in 2014-15 from 19.04 mt the year before due to inclement weather conditions. The Ministry also said the Small Farmers' Agribusiness Consortium (SFAC) and the National Agricultural Cooperative Marketing Federation of India (Nafed) had procured 5.857 tonnes of onions funded out of the price stabilisation fund. The SFAC has procured 2,511 tonnes separately for Delhi and is supplying the bulb at Rs. 30.50/kg to Safal stores, being retailed for Rs. 39/kg.

## **Relief for consumers**

Consumers can also buy onions for Rs. 35/kg from 120 Delhi Milk Scheme booths. Prices at 280 fair price shops have been reduced to Rs. 30/kg from August 12.

The Centre had amended the Essential Commodities Act, 1955, on July 1, to enable States and Union Territories to impose stock limits on onions for a year i.e., up to July 2, 2016.

## **Deficient August for north-west, central India**

(in lakh hectares)

<b>Crop</b>	<b>Area sown</b>		<b>%</b>
	<b>2015-16</b>	<b>2014-15</b>	<b>chg</b>
<b>Rice</b>	<b>333.6</b>	<b>332.1</b>	<b>0.5</b>
<b>Pulses</b>	<b>101.9</b>	<b>92.6</b>	<b>10.1</b>
<b>Coarse cereals</b>	<b>167.7</b>	<b>162.3</b>	<b>3.3</b>
<b>Oilseeds</b>	<b>168.3</b>	<b>168.4</b>	<b>-0.1</b>
<b>Sugarcane</b>	<b>48.8</b>	<b>47.2</b>	<b>3.5</b>
<b>Jute &amp; Mesta</b>	<b>7.8</b>	<b>8.1</b>	<b>-4.1</b>
<b>Cotton</b>	<b>110.2</b>	<b>118.8</b>	<b>-7.2</b>

as on Aug 14, 2015

If July rainfall has been below normal by a wider-than-expected margin of 16 per cent, August too has not been drastically different. This trend is in line with model forecasts.

The week ending August 12 left behind a deficit of 31 per cent while the week that followed (ending August 19) saw the shortfall being reduced to 10 per cent, thanks to monsoon getting briefly 'active' over south peninsula and 'vigorous' over east and north-east India. During the latter phase, a rain surplus visited Tamil Nadu and Lakshadweep in



the South; Assam, Meghalaya, Arunachal Pradesh and sub-Himalayan West Bengal in east and north-east; and West and East Rajasthan in the north-west.

### **Deficient run**

The forecast issued by the India Meteorological Department, Pune-based Indian Institute of Tropical Meteorology and the Hyderabad-based facility of Indian Council of Agricultural Research, valid for the next two weeks, is as follows: The extreme north and south peninsula as well as most parts of central and north-west India will likely witness deficient to scanty rainfall during the week ending August 27. As a result, the country as a whole will be deficient during the week.

Deficient to scanty rainfall is also the forecast for major parts of north-west India, central India and south peninsula for the subsequent week that runs until September 3. Rainfall will be normal to excess over Met subdivisions mainly over east and north-east India during the week ending September 3.

As per this update, during the last fortnight, normal or above normal rainfall was reported from the Met subdivisions of East Rajasthan, West Madhya Pradesh and Coastal Andhra Pradesh. Normal or above normal rainfall occurred in either of the last two weeks in Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Haryana, Delhi, West Rajasthan, East Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Marathwada, Vidarbha, Bihar, Sub-Himalayan West Bengal, Sikkim, Arunachal Pradesh, Assam, Meghalaya, Telangana, Rayalaseema, Coastal Karnataka, South Interior Karnataka, Kerala and Tamil Nadu.

Below-normal rainfall occurred in the Met subdivisions of Punjab, West Uttar Pradesh, Jharkhand, Gangetic West Bengal, Odisha, Gujarat State, Konkan, Goa, Madhya Maharashtra, Nagaland, Manipur, Mizoram, Tripura and North Interior Karnataka.

### **Next fortnight**

The outlook for the next fortnight suggests that normal or above normal rainfall would be largely confined to Arunachal Pradesh, Assam, Meghalaya, Nagaland, Manipur, Mizoram, Tripura, West Bengal, Sikkim, Bihar, Odisha and Jharkhand.

Normal or above normal is forecast in either of the next two weeks in Jammu and Kashmir, Himachal Pradesh, East Uttar Pradesh, Chhattisgarh, Coastal Andhra Pradesh, Rayalaseema, Telangana, Tamil Nadu and Kerala.

Below-normal rainfall would be the likely trend for Uttarakhand, Punjab, Haryana, Delhi, West Uttar Pradesh, Rajasthan, Gujarat State, Maharashtra, Madhya Pradesh and Karnataka.

### **Raging typhoons**

A fresh rain-generating low-pressure area is forecast to evolve early this week but models have failed to arrive at a consensus over its capacity to gain traction over the mainland.

This is because they are not too sure if the 'low' would be able to hold on its own free from the disruptive influence of a typhoon pair raging concurrently in the north-west Pacific.

Even though crops experienced moisture stress over regions such as Gujarat and Madhya Maharashtra up to third week of July and over Telangana up to first week of August due to deficient rainfall during earlier weeks, the situation improved due to good rainfall during the last three weeks.

But in Marathwada, North Interior Karnataka and Rayalaseema, crops are still experiencing moisture stress due to deficient rainfall during the last few weeks even though there is some improvement of the situation in Marathawada due to rainfall during last week. On the other hand, there are reports of floods in Assam during end of July and in Gangetic West Bengal and Manipur during the first week of August due to heavy to very heavy rainfall.

### **Agri Ministry proposes hike in import duty on crude, refined edible oil**

The Agriculture Ministry has proposed an increase in import duty on crude and refined edible oils to protect farmers' interests and provide a level-playing field to domestic oilseed processors.

At present, the import duty on crude edible oil is 7.5 per cent, and for refined oil, it is 15 per cent. The duties were last revised in December.

"We have a mandate to promote production of oilseeds. Farmers are getting affected because of increasing import of edible oils. We have proposed the Finance Ministry to consider raising import duty from the current level," a senior Agriculture Ministry official told PTI.

Meanwhile, the Solvent Extractors Association (SEA) has demanded that the government raise the import duty on crude oil to 25 per cent and that of refined oil to 45 per cent.

According to SEA, the duty hike will protect the interest of crushers and also local farmers to sustain their interest in oilseed cultivation.

The association said the import of edible oils has reached a record of over 10 million tonnes in the first nine months of the current oil year ending October 2015, against 8 mt in the year-ago period.

Total imports are expected to touch 14 mt valued at Rs. 65,000 crore in the entire 2014-15 oil year against the previous year's import of 11.8 mt, it added.

About 60 per cent of India's annual edible oil demand of 18-19 mt is met through import, mostly from Malaysia and Indonesia.

## Bay 'low' crucial as lone rain surplus over North-West evaporates



Monsoon deficit stayed put at nine per cent on Friday after rains battered East and North-East India during the 24 hours ending in the morning with Cherrapunji in Meghalaya coming in yet again for special treatment.

But the monsoon appeared to be losing ground elsewhere with the lone surplus over North-West India evaporating causing it to fall into a deficit.

### **DEFICIT SPREADS**

While East and North-East India dramatically reduced the deficit overnight from double-digits to six per cent on Friday, North-West fell into the red with a deficit of two per cent.

The respective deficits over South Peninsula and Central India stay at 20 per cent and 11 per cent. It is in this context that prospects of a rain-driving low-pressure area brighten up in the Bay of Bengal.

But it has to look back on its shoulder to the northwest Pacific where twin typhoons Atsani and Goni are in the process of negotiating a U-turn to race away into Central Pacific.

It will be at least a couple of days more until their pull power lessens the combined grip over the Indian monsoon and leaves it on its own.

### **NOT 'PROMISING'**

This would give the window for the 'low' to take proper shape in the Bay. Still the latter owes it to the typhoons for having ratched up the cross-flows which would in turn initiate the 'low.'

The India Met Department expects the 'low' to materialise as early as Monday but the European Centre for Medium-Range Weather Forecasts refuses to be that optimistic.

The latter is now delaying the formation by at least two days to Wednesday and is also indicating that, contrary to expectations the 'low' may not gain any significant traction.

This would tell on its capacity to generate rain over the mainland. An experimental tracker featured by the US Centre suggested that the 'low' could track closer to the foothills of the Himalayas.

This would mean that heavy rains would mostly be confined to East and North-East India and parts of North-West India.

# Business Standard

**How Karnataka Experiment can revolutionize agriculture in India**



My experiences with unified agri markets  
Women head 23 million rural households  
Debt-laden Maharashtra To Spend Its Way Out of Farm Crisis  
Centre lauds Karnataka's agri marketing system  
Why the govt took a U-turn on public debt office

The single biggest challenge in **farming** is debt. A large share of farmers' insurmountable **debt** burden comes from purchase of farm equipment. Mechanized farming results in higher productivity but is notoriously capital intensive. A 40 HP tractor with 2 basic implements (a rotavator and a cultivator) and a trolley costs about Rs. 8 lakhs after subsidies. Given the highly fragmented small landholding in our country and rapidly shrinking **labour** force, most farmers lack the resources to upgrade from animal powered farming to fossil fuel powered cultivation. In fact, maintaining a pair of bullocks too has become an expensive proposition. Let alone the high price of fodder, the shoeing of bulls has become a monthly affair or even shorter thanks to metalled roads. Each session costs about five hundred rupees and unlike horses, there are not many metal or rubber options. The craft too is dying.

Custom hire centers, which provide farm equipment on hourly rentals basis are the most obvious solution to bridge this need gap. Many countries have achieved great success with this model. During the late 80s and early 90s, the government foresaw the need for

such centres and appointed local co-operatives to run such centers. Each taluk in [Karnataka](#) had two to three such centres and each centre had up to 9 tractors. The initiative did not do well and most of the [tractors](#) were auctioned off a few years later. The initiative failed because of mainly two reasons: a) labour was abundant and b) poor choice of service partner.

The math did not work in favour of machines during those days as costs of labour and animal power was substantially cheaper. When labour is at surplus, farmers are more interested in investing in irrigation and fertilizers rather than machines. Moreover, the equipment became exclusive property of co-operative administrators and poor maintenance led to frequent breakdowns.

Now, Karnataka has embarked on the journey again. This time with a twist in the business model. The venture, if it succeeds, can have nationwide impact. In July 2014, the government appointed two private entities to run 178 custom hire centers around the state for six years. Shri Kshethra Dharmasthala Rural Development Project, popularly known as SKDRDP, a charitable trust promoted by the administrator of Dharmasthala temple in South Canara, runs 161 centres. The Indian Society of Agribusiness Professionals, New Delhi has been assigned to run the remaining 17 centres.

Under the public private partnership (PPP), each center has been budgeted for Rs.50 lakhs in the first year and Rs.25 lakhs in the second year. The government has chipped in Rs.37.5 lakhs for the first year and will fund another Rs.12.5 lakhs in year two. The private partner has put in equity of Rs.12.5 lakhs for the first year and will make equal contribution in the second year. From the third year onwards, the private entity will have to operate the center with internal accruals for the remainder of contract period.

The SKDRDP centers opened for business in February this year. While it is too early to judge the performance, the initial numbers are quite encouraging. The regional office in Mysore runs 18 centers in Mysore, Chamarajanagar and Mandya districts. Vishwanath S.B., Regional Co-ordinator at Mysore said that equipment rentals are about 10% to 20% cheaper than the rate offered by private players. He said that about 7,724 farmers in three districts have utilized the centres' services and he expects more farmers to sign-up during the winter cropping season. So far, the regional office has recorded a revenue of about 1.4 crores. Quite a remarkable achievement for a six months old enterprise! Along with 16 medium-powered tractors (45HP) and 11 mini tractors and other associated implements, the centers rent out hand-operated machineries such as weed cutters, harvesters,



transplanters, battery-powered sprayers, and irrigation pumps. The equipment has been stocked based on cropping pattern in each location.

But not all is rosy. Scaling to 161 centers without a pilot project has resulted in some costly mistakes. Among the 928 equipment bought by SKDRDP, some are clearly dud. Weighing about 120 kilos, a 5HP diesel pump is not portable. So are heavy-duty chaff cutters. The equipment list that was drawn up with inputs from farmers reads more like a fantasy wish list.

Although the organization, in principle, does not extend credit on its rentals, the local centre managers had offered 80 percent credit terms in some cases and are now facing difficulties in recovering it. A better option perhaps would be link the rental amount to crop loans availed from banks.

With a tractor density of about 13 per 1000ha, we are still a long way to go to match developed world's 32 tractors per 1000ha. Given the ground realities of small landholdings, we might never catch up with it. Herein lies the advantage of these hire centres. They not only de-risk the farmers from accumulating more debt, it also is a more efficient way of deploying public funds. While the market is vast enough to accommodate both small private vendors and public funded hire centers, care should be taken to regulate the centres as the massive scale always provides an opportunity to monopolize.

### **Agri Min pushes for hike in import duty of edible oils**



The [Agriculture Ministry](#) has proposed an increase in [import duty](#) on crude and refined [edible](#) oils to protect farmers' interests and provide a level-playing field to domestic oilseed processors.

At present, the import duty on crude edible oil is 7.5%, and for refined oil, it is 15%. The duties were last revised in December.

"We have a mandate to promote production of oilseeds. Farmers are getting affected because of increasing import of edible oils. We have proposed the Finance Ministry to consider raising import duty from the current level," a senior Agriculture Ministry official told PTI.

Meanwhile, industry body Solvent Extractors Association (SEA) has demanded that the government raise import duty on crude oil to 25% and that of refined oil to 45%.

According to SEA, the increase in duties will protect the interest of crushers and also local farmers to sustain their interest in oilseed cultivation.

It said the imports of [edible oils](#) has reached a record of over 10 million tonnes in the first nine months of the current oil year ending October 2015, as against 8 million tonnes in the year-ago period.

Total imports are expected to touch 14 million tonnes valued at Rs 65,000 crore in the entire 2014-15 oil year against the previous year's import of 11.8 million tonnes, it added.

About 60% of India's annual edible oil demand of 18-19 million tonnes is met through import, mostly from Malaysia and Indonesia.



### **Record caFe: 'We need technologies to mitigate impact of climate change on crop production'**

Renowned agricultural scientist and vice-chancellor of Punjab Agricultural University (PAU), Baldev Singh Dhillon, has been a vocal supporter of conservation agriculture measures for dealing with falling water table, and excessive use of pesticides and fertilisers in northern India. Dhillon spoke to FE's Sandip Das on the challenges faced by

Indian agriculture and the need for adopting new technologies in promoting conservation agriculture.

You have seen the Green Revolution programme closely. How do you view Indian agriculture's progress and the challenges it is likely to face in the coming decades?

Indian agriculture registered remarkable progress not only in the Green Revolution era but even thereafter.

Recently, the country has become one of the biggest exporters of foodgrains. However, we are facing a number of challenges in the sector.

Over 55% of India's population depends on this sector for livelihood (it is the largest private enterprise), but the share of this sector is only about 14% in the gross domestic product (GDP) of the country. The performance of other sectors of the economy is much better compared to the farm sector. Thus, the gap between farm and non-farm incomes has increased over time, resulting in relatively high poverty in the farm sector. During 2014-15, farm sector's growth was just 0.2% compared to 7.3% in the GDP of Indian economy.

Declining water availability, shrinking farm size, imbalance between input and output prices, costly mechanisation, and poor agro-processing facilities leading to huge wastages are other challenges. Then there is climate change, which affects agriculture more adversely than other sectors. In the face of these challenges, we have to meet the food requirement and other needs of our ever-increasing population and ensure that farmers live as good a life as those working in other sectors.

While on one hand we need large investments to support the farm sector, on the other the challenge is to make huge investments in non-farm sectors which have the potential to address the unemployment and under-employment problem in rural India.

Punjab, Haryana and Uttar Pradesh have initiated a crop diversification programme to tackle with the problem of rapidly-depleting groundwater table. What has been the impact?

Punjab has promoted cultivation of basmati rice, maize, cotton and horticultural crops under the diversification plan. There has been substantial increase in the area under basmati, which consumes less water than parmal rice.

The area under horticultural crops has also increased. But the farmers have faced marketing problems in the cultivation of these crops. There were fluctuating output prices in the case of basmati rice (even delay in payments) and horticultural crops. In maize, farmers sold the produce at a price much lower than the minimum support price (MSP). To make the diversification programme successful, market-related issues for alternative crops need to be addressed at the national level, by making provision for remunerative MSP, assured procurement and timely payments to growers. There has to be a level-playing field.

How acute is the water availability crisis in Punjab? What steps need to be taken immediately?

The excessive drawing of groundwater in Punjab has resulted in declining of water table at a very rapid rate (0.1-1.0 metre a year) along with higher cost of pumping water. Punjab, in fact, has 146 development blocks, of which 110 blocks have been categorised as overexploited, three as critical and two as semi-critical. The most affected areas fall in the districts of Barnala, Sangrur, Patiala, Moga, Jalandhar and Shahid Bhagat Singh Nagar, where water tables have declined in the range of 8.2-11.9 metres in 2000 to 12.4-26.5 metres in 2013.

In 2008, Punjab government issued an ordinance which was subsequently made a law—that rice cannot be transplanted before June 10. This year the state government extended the date to June 15. Due to this measure, the annual fall in water table has been checked by about 27.5 cm, which is about 65% of the long-term water table falling rate.

Besides, breeding early maturing rice varieties—which require less water—was put in focus by the PAU and the university recently released varieties such as PR 121 and PR 123, which mature in lesser number of days than the predominant varieties. These varieties mature in 135 days compared to more than 160 days taken by the rice variety Pusa 44.

The use of laser land leveller, which saves about 15% of irrigation water, has been recommended and about 16 lakh hectares of land has been levelled in Punjab. The

technology for cultivation of direct-seeded rice has been developed and it covered about 2.8 lakh acres in Punjab during 2014. Its coverage is expected to increase this year.

In addition, micro-irrigation system in Punjab is being promoted but the rate of its adoption has been slow—because of large financial requirements—as compared to the potential of the technology. Since this technology saves up to 50% of irrigation water, thus it needs larger subsidy.

States such as Andhra Pradesh, Odisha and Chhattisgarh are now producing substantial quantity of rice, which they contribute to the central pool. Yet farmers in Punjab and Haryana have not shifted to alternative, less water-intensive crops. What could be the reasons?

Farmers will opt for alternative crops only if they are assured that their cultivation is at least as remunerative as rice, if not more. Otherwise, it is very difficult to convince the farmers. Remember, rice enjoys the advantage of larger subsidy support, remunerative MSP and assured procurement. Even climate change has lesser adverse effect on rice productivity as compared to maize and cotton.

What is the state of agricultural research in the country? What are the challenges faced by the sector due to climate change?

India has one of the largest agricultural research systems in the world, with the Indian Council of Agricultural Research (ICAR) being the nodal organisation. The Agricultural Research Service (ARS) basically comprises ICAR institutes and agricultural universities, and also gets support from the Department of Biotechnology, Council for Scientific and Industrial Research, Department of Science and Technology, University Grants Commission, Bhabha Atomic Research Centre and some traditional universities. Although we are an agrarian country, yet our investment in research and development in agriculture has been rather low. To be able to meet the emerging challenges of our ever-increasing population and competing with other countries in the world market, we need to increase investment in agriculture research to at least 2% of GDP. It is known that investment in agriculture yields higher returns and is more effective in poverty alleviation than that in other areas.



Climate change has become imminent and, in the long run, it can adversely affect the productivity of crops. Thus, it is important to focus on development of technologies to mitigate the adverse effects of climate change on crop production. Suitable technology needs to be developed for prediction of extreme weather events such as excessive rainfall in a short period, frost and hailstorm. We also have to identify crop genotypes showing tolerance to such extremes, and work on new agronomic practices and cropping systems that can withstand the adverse effects of the changing climate.

How is PAU contributing to agricultural research?

We are actively engaged in research to meet the emerging challenges in agriculture. Important contributions (besides crop improvement) include promotion of water-saving technologies such as direct seeded rice, usage of laser land leveller, drip irrigation in maize, wheat, onion and chilli, and use of tensiometer which is recommended in rice cultivation.

For residue management in the crop, the Happy Seeder developed by us incorporates rice straw in field soil and also reduces the cost of sowing of wheat crop. Besides, the use of straw chopper, shredder and baler has also been recommended for rice straw management. In a web-based decision, support system has been developed by us for monitoring and management of potato late blight. Several seed varieties in rice, wheat, maize, pulses, garlic, onion, tomato, etc, are at various stages of development.