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THE HINDU

Onam Samridhi vegetable markets

The Department of Agriculture is setting up 1,350 Onam Samridhi vegetable markets across the State in all panchayats, municipalities and corporations from September 9 to 13. The markets are being set up in association with the Hortcorp, Vegetable and Fruit Promotion Council Keralam, State Horticultural Mission, Kudumbasree and cooperative societies. There will be 104 vegetable markets in Kozhikode district.

Training women farmers on entrepreneurship



The Farm Women Knowledge Centre of the Tamil Nadu Agricultural University – Horticultural College and Research Institute for Women at Navalur Kuttapattu near here has introduced entrepreneurship training programme for women in agriculture.

The training will focus on enhancing the skills of women working in farms in producing value-added food products including fruit squash, mixed fruit jam, dry banana, food processing, raising of quality horticultural nurseries, production of vermin-compost and other products.

The duration of the training will be according to the type of trade chosen by the women.

R. Duraikannu, Minister for Agriculture, who inaugurated the training at the Institute's campus on Saturday, said that this was yet another scheme for empowering women and providing them economic independence and social dignity.

He said that women working in farms, despite their talent and experience, did not get their due share and so Chief Minister Jayalalithaa had evolved the scheme with a view to turning them into prospective entrepreneurs.

Mr. Duraikannu said that the State government attached priority for protecting the farmers' interest and this was evident from the budgetary support of Rs. 6,972 crore this year.

On the contrary, the previous Dravida Munnetra Kazhagam had allotted only Rs. 7,000 crore for five years.

Vellamandi N. Natarajan, Minister for Tourism, said that farm women already had innate entrepreneurship skills and the training would go a long way in assisting them.

S. Valarmathi, Minister for Backward Classes and Minorities Welfare, said that women workers should float producers' companies shortly after the training. The entrepreneurs should also focus on avoiding post-harvest wastage of agricultural produce.

K. Ramaswamy, Vice-Chancellor of Tamil Nadu Agricultural University, K. S. Palanisamy, District Collector and D. Saraladevi, Principal of the Institute spoke on the objectives of the training.

D. Pandiyarajan, Dean of the Agricultural College and Research Institute and S. Geetha, Project Director, said that the training would be individual or group-based with an orientation towards entrepreneurship.

Earlier, Mr. Duraikannu released training guidelines and the first copy was received by Mr. Natarajan.

New tomato market in Madanapalle soon, says Agriculture Minister



Agriculture Minister Prattipati Pulla Rao on Friday said that the State government would initiate steps to construct a new tomato market in Madanapalle soon, and a 70-acre land would be allocated for the project. He foresaw a big business in tomato produce and assured the farmers that the disbanded jackpot system (commission system) would continue and the existing 4% commission module for traders would be implemented in true spirit.

The horticulture officials apprised the Minister that Madanapalle market happened to be the largest in Rayalaseema region, with a track record of exporting high-quality tomatoes to Mumbai, Chennai, Varanasi and several cities in the country and recording multi-crore business round the year.

The Minister was here to inspect the operation of rain guns in groundnut fields in Madanapalle division. Inspecting the trading outlets and dumping of tomato produce at the market yard, the Minister observed that Chittoor district holds the best potential to become a horticulture hub.

Though the price of tomatoes was plummeting from time to time, the crop had turned into a good business in the region.

He said that when the prices of tomatoes were stabilised, the farmers would reap rich benefits and escape the threat of falling prices. The farmers said that they never craved for bumper benefits, but were bogged down with sudden dropping of prices which would force them to abandon the crops in the fields as the scenario would throw them into a quandary with the labour charges becoming more than the tomato market price.

They informed the Minister to take measures for stabilising the prices at at least Rs. 350 per crate with 30 kg of tomatoes. Responding to their plea, Mr Pulla Rao said that he would place the same before Chief Minister N. Chandrababu Naidu.

Later, the Minister inspected the rain guns at K.V. Palle masndal and interacted with the farmers, asking them to be bold as the government would stand by them.

Crop damage, nip it in the bud



Can you identify the disease that's damaging your crop? Do you know how to treat it?

Here is a mobile application that can address the problem. If you click a photo of the leaf and upload it, the app identifies the disease and suggests what measures are required to protect a plant.

The app – Plantix – developed by Progressive Environmental and Agricultural Technologies (PEAT), a German-based company started by young entrepreneurs. The application is being used by select farmers who have smart phones in India on pilot basis and the results are impressive. This app can be downloaded from playstore.

While existing technologies need human intervention for suggestions, this technology uses artificial intelligence to forward suggestions to farmers. The photo uploaded would

be compared with the previous similar photos and suggestions would be forwarded to farmers.

PEAT has also developed protocol for suggesting remedial measures for diseases affecting crops like beans, wheat, pigeon pea, paddy, sorghum, millets, pluses and vegetables. The representatives of PEAT have clicked as many as 5,000 photos of different kinds of leaves that were adversely affected with diseases. These photos would be connected to the PETA server which would identify identical problems and suggest measures. If a particular problem has no solution in the server, scientists would identify the problem and suggest measures. At present, the application is available only in English and would be made available in Telugu by next year. “We are using artificial intelligence so that machines can take decisions based on data supplied by the server and suggest remedial measures. The machine will do all the job based on pre-fed information instead of scientists examining the photos and giving suggestions. Hence, the result will be instant and within seconds, farmers get the suggestions on the screen. It also suggests not to go for any pesticide if it’s not necessary. This saves money for farmers as well,” said Charlotte Schumann, an expert in knowledge management, and Alexander Kennepohl, an expert in plant pathology and data, both from PETA. They are also part of a seven-member founding team of the company.

They said about 25,000 farmers have already been using this application in Germany.

New organisation to market hill crops

About 450 farmers have joined hands and promoted a Farmers Producers’ Organisation (FPO) to market hill crops directly to buyers and take up value addition for better profit.

Inaugurating the Kodai Hill Crops Farmer Producers’ Organisation established in Kodaikanal block under the aegis of NABARD here on Friday, NABARD Chief General Manager S. Nagoor Ali Jinnah said that monsoon, money lender and market were three major challenges to farmers. FPO would eliminate middlemen and ensure better price to farmers.

Bulk procurement of inputs and seeds would cut production costs and bulk production would help buyers lift large quantities at one place. Such measure would enhance sale price of agri-produce. Direct marketing would be its strength. It would be mutually beneficial to farmers and buyers.

Besides direct lending, the NABARD would also fund for skill building exercises, guide business planning and support technological extension through exposure visits, agriculture university tie-ups, expert meetings and also explore tie-up with buyers and big agro companies, he added.

NABARD Assistant General Manager L. Sanjeevi said Kodai FPO was the 13th in the district. Financial literacy was essential for farmers to scale down financial burden. Good agriculture practices would scale down 25 per cent of production costs and ensure 25 per cent increase in yield. Now, coffee production per acre was 400 kg whereas it was 1,000 kg per acre in Karnataka.

The bank would offer Rs.10 lakh to meet the initial expenditure of each FPO. The FPO could get loan up to Rs.1 crore without any collateral security.

Chinese scientists convert sand into soil

Chinese scientists have claimed to have converted sand into fertile soil using a new method which they hope will be useful to fight desertification.

A team of researchers from Chongqing Jiaotong University has developed a paste made of plant cellulose that, when added to sand, helps it retain water, nutrients and air.

A 1.6-hectare sandy plot in Ulan Buh Desert in Inner Mongolia Autonomous Region, north China, has been transformed into fertile land, yielding rice, corn, tomatoes, watermelon and sunflowers, after being treated with the new method.

An issue of the English-language journal *Engineering*, published by the Chinese Academy of Engineering (CAE), will publish the research by the Chongqing scientists Yi Zhijian and co-author Zhao Chaohua.

“The new method will hopefully help turn desert areas into an ideal habitat for plants,” state-run Xinhua quoted Mr. Yi as saying.

The plants in the sandy test plot needed about the same amount of water as those grown in regular soil, but required less fertilizer and bore higher yields, according to estimates by experts. Since 2013, scientists have been experimenting with outdoor cultivation at two sites with areas of approximately 550 and 420 square metres in Chongqing, where scientists simulated desert landform conditions.

The scientists said the plants survived the heavy rain and high temperatures, the typical climate conditions in Chongqing. The crops, including rice, corn and potatoes, flourished in the converted soil. — PTI

Wild mango could help tackle chocolate crisis

Scientists in Wales may have found a solution to the global chocolate crisis caused by a cocoa shortage by using wild mango as a new cocoa butter alternative.

Bangor University researchers discovered wild mango butter can be used as an alternative to cocoa butter.

Disease and crop failure made the price of cocoa butter more than double between 2005 and 2015, with prices set to rise by 30 per cent by 2020.

Cocoa butter is the pure butter extracted from cocoa beans and is one of the unique natural fats highly demanded by food, pharmaceuticals and cosmetic industries and in particular is a major ingredient in the chocolate industry.

Cocoa butter is currently the only commercially available natural fat which is rich in saturated and monounsaturated fatty acids. Moreover, the price of cocoa butter is one of the highest among all tropical fats and oils, according to International Cocoa Organisation. The price of cocoa butter more than doubled between 2005 and 2015.

The discovery could see mango butter — which is found to be lower in fat — “plucked from obscurity”, the team said. Sayma Akhter, a Bangladeshi-origin senior author and postgraduate student, said wild mango was a so-called “Cinderella” species — one which is visually appealing but currently overlooked — with its real potential still unrealised.

“The identification of value could pluck it from obscurity into mainstream production,” she said.

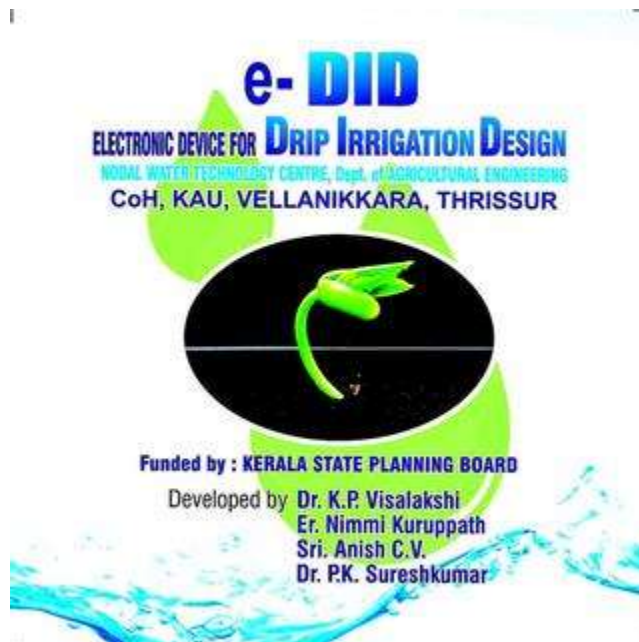
New income source

“With the support of government and non-governmental organisations, small-scale industries could be set up to create a new income source for local people. There are many other new products that can come from underutilised fruits which are still waiting for proper attention,” she said.

Prof. Morag McDonald, head of the university’s School of Environment, Natural Resources and Geography, said a new use for the wild mango could help protect it from deforestation. — PTI

Welsh scientists have found that the fruit can be used as an effective alternative to cocoa butter

New software for drip irrigation



The Department of Agricultural Engineering (DAE) under the Kerala Agricultural University (KAU) has developed a software titled e-DID (electronic tool for Drip Irrigation Design) for assisting farmers and amateurs in drip-irrigation system design, irrigation scheduling, pump selection and cost estimation.

The design of a micro-irrigation system depends on several parameters, including topography, soil type, crop to be irrigated, weather conditions, and technological and financial resources. Drip irrigation, if properly designed, can achieve more than 90 per cent efficiency. The cost of setting up a drip irrigation system varies with crops, area, and location. The design of the system is time consuming and highly technical, which is not possible for an amateur without the support of an expert, says K.P. Visalakshi, principal investigator of the project.

This situation has led to the development of e-DID software, which will provide the required amount of water, full system design, layout sketch, pipe network and fittings, required pump horse power, and finally, the total cost of the system, by giving inputs such as the crop, area and district, Dr. Visalakshi says. It is designed for all districts in the State, based on the maximum Reference Crop Evapotranspiration (ETO) and for ten major crops cultivated in the State. The design can be done and compared in three different layouts, suitable for almost all field conditions and can select the most efficient and cost-effective layout, she adds. The software designed in C# dot net, a computer programme, uses only a minimal number of readily available and intuitive parameters and hence makes it user friendly. It will be of great use to farmers, amateurs, industrialists, marketing executives, extension specialists and researchers in designing drip irrigation systems.

Nimmi Kuruppath, research associate; P.K. Sureshkumar ,associate professor, DAE; and Anish. C.V., a computer expert, are the other members of the team. The system has been developed under the project 'Establishment of Nodal Water Technology Centre' funded by Kerala State Planning Board.

The team is planning to make it available for free download through the KAU website shortly.

THE HINDU BusinessLine

Sowing improves to 96% in Gujarat on August showers

Ahmedabad, September 6:

Widespread rains last month brought some relief and improved the sowing scenario in Gujarat, which faced a severe water shortage in May and June.

So far, the State has received 70 per cent of its long period average (LPA) rainfall. State government data showed that 96 per cent of area covered under kharif sowing.

The State Agriculture data released on Tuesday showed total kharif sowing at 8,356,400 hectares, which is 96.37 per cent of the three-year average sowing.

Of the major kharif crops, groundnut and cotton saw sluggish progress in sowing, while pulses, mainly urad (black gram), muth (Turkish gram), tur (pigeon pea) and moong (green gram) saw sharp growth over normal sowing at 168 per cent, 81 per cent, 44 per cent and 32 per cent, respectively. Soyabean, too, witnessed impressive growth of 67 per cent over the three-year average.

The State's LPA normal rainfall is 797 mm, of which it has so far received 558 mm.

Agri expo opens tomorrow

About 85 companies will showcase their products in agriculture and agri-business areas.

Hyderabad, September 6:

The city is hosting a three-day Agritex 2016 beginning September 8. About 85 companies will showcase their products in agriculture and agri-business areas. The fourth edition will also have two days of deliberations on issues related to seed, policies and regulation.

Addressing a press conference here on Tuesday, Kenes Exhibitions General manager Prema L Zilberman said a group of farmers are being invited to the conference. “They will interact with scientists on a variety of challenges that they face on the field,” she said.

Kenes Exhibitions is organising the event in association with the Telangana government and Food 360 Foundation. To be held at the HITEK facility at Madhapur, the International Agricultural, Dairy, Food Processing Trade Fair will be inaugurated by V Praveen Rao, Vice-Chancellor of Prof Jayashankar Telangana State Agriculture University, and C Parthasarathi, Principal Secretary (Government of Telangana).

Satish Reddy Ambati, General Manager of Food 360 Foundation, said that the theme of the conference would be ‘seed’. “The sessions will focus on strengthening the seed sector, on the integrated pest management practices, water conservation, agriculture financing and marketing,” he said.

Onion output scales new record at 21 mt in 2015-16



NEW DELHI, SEPT 5:

Country's onion output is estimated to have touched the 21 million tonne mark - a new record - in the crop year ended June 2016, the government said today.

Tomato production also rose 12 per cent to 18.4 mt in 2015-16 crop year as against 16.3 mt in the previous year.

However, potato output declined 9 per cent to 43.7 mt compared with 48 mt last year.

“Production of onion is estimated to be around 21 million tonnes, which is 11 per cent higher than the previous year,” the agriculture ministry said while releasing the third advance estimate of horticultural crops for 2015-16.

Onion output had dropped to 18.92 million tonnes in 2014-15 crop year (July-June) due to poor rains. The previous record was 19.4 mt in 2013-14.

“We have achieved a new record in onion production in 2015-16 as acreage rose buoyed by good weather and better prices during the sowing period,” National Horticulture Board Managing Director A K Singh told PTI.

Potato production has dropped because of a fall in output in West Bengal, he said.

Higher onion output meant wholesale prices crashed to as low as Rs. 7 per kg in producing states this year, from Rs. 45 in the same period last year, as per government data.

The government has announced export incentives to boost outbound shipments and enabled prices to firm up in the interest of farmers.

Total vegetable production is estimated at around 167 mt, which is almost the same as the previous year, while fruit output is expected to be higher by 2 per cent at 91 mt in 2015-16.

Production of spices is estimated to be around 6 mt, 4 per cent higher than the previous year.

The total horticulture output of the country is estimated to be around 283 mt during 2015-16 as against 280.98 mt in the previous year.