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After honey, it's cashew's turn to go organic



A ripe cashew nut from which organic cashew will be extracted by the tribal people of Rampachodavaram. —PHOTO: B.V.S. BHASKAR

A.P. tribals to get loans and help to grow the crop in big way.

The Girijan Co-operative Corporation (GCC), leader in marketing organic honey, is now venturing into organic cashew with the support of the Integrated Tribal Development Corporation (ITDA), Rampachodavaram, in East Godavari district of Andhra Pradesh.

K.V. Chakradhar Babu, who took charge as Project Officer of ITDA, gathered statistics on cashew farming in the agency area. Cashew farming is the major source of income in the region. He also met tribal farmers during Sunday shandies.

The ITDA is making efforts to set up Organic Agriculture Producers' Societies at the village level and develop them like Dwacra groups at the mandal level.

Payments will be made in bio-metric system and technological partners will be set up.

Loans will be sanctioned by the GCC and ITDA will also extend support for to societies.

"Farmers can store their produce in godowns. Purchasing centres will be set up in villages apart from existing sales points. Tribal farmers can make use of organic certificates to avoid problems in transporting products from procurement centres to clusters," said Mr. Babu.

MoU signed

The GCC has signed an MoU with the Kerala-based Olam Company, which will give organic certificates to tribals and it will pay a premium of Rs.2 per each kg of organic product for the farmers who are having the certificate.

Mr. Babu said cashew crop was cultivated by tribals in Rampachodavaram on about 40,000 acres and they were not getting profitable price owing to lack of proper marketing. In 4-5 mandals the cashew cultivation was high.

Initially, area would be earmarked for cultivating 10,000 tonnes of organic cashew.

Businessmen's view

However, businessmen are differing with the idea of 'organic cashew'.

"We support the idea of eliminating middlemen between tribals and industries. However, there is no such thing called organic or inorganic in cashew as cashew gardens will not need more pesticides. Organic tag is only to create brand image," said Appareddy, a businessman at Rajanagaram in the Rajahmundry rural area.

Studies on use of banned pesticides questioned



The papers published by researchers from Jawaharlal Nehru University claim that Indian farmers use banned pesticides for crop protection.

Farmer leader K. Chaudhary said that farmers in India did not use banned pesticides

The Crop Care Federation of India (CCFI) and Indian Council of Agricultural Research (ICAR) have raised questions about the authenticity of two research papers published by researchers from Jawaharlal Nehru University, regarding Indian farmers using banned pesticides for crop protection.

Addressing a press conference here on Thursday, CCFI's chairman Rajju Shroff said: "We have urged the President of India to order an inquiry into the two studies that are a part of a Ph.D. thesis work and have been published abroad. We have asked the university to share the laboratory data under the RTI, but it's not being shared, raising doubts on the authenticity of these studies."

The two studies on which the inquiry is being sought are: "Assessment of the concentration, distribution and health risk of organochlorine pesticide in Momordica charantia grown in Periurban region of Delhi, India" and "Health risk assessment of organochlorine pesticide exposure through dietary intake of vegetables grown in the periurban sites of Delhi, India".

K.K. Sharma, national co-ordinator, All India Network Monitoring Pesticides Residues, ICAR, said the findings in these studies were in stark contrast to those by laboratories functioning under the ICAR and accredited by the National Accreditation Board for Testing and Calibration Laboratories.

"We (ICAR) have sent three letters to the university demanding raw data. But, the latter is still dodging," he said.

He said that the ICAR's monitoring studies found vegetable samples carrying 2-3 per cent of pesticide residues above the maximum residue limits (MRL) while the university study claimed 100 samples exceeding the MRL.

"Such studies, published outside India, negatively affect the image of the Indian agriculture industry. It is an accepted protocol and mandatory for any laboratory to maintain all laboratory records including gas chromatography readings for challenge inspection and verification post-publication," he said,

adding that the citizens of the country had the right to seek the laboratory data.

Farmer leader Krishenbir Chaudhary said farmers in India adopted best farming practices and it was wrong to say that they used banned pesticides.

Jowar gets a jolt as NK farmers take to toor



This north Karnataka staple is seeing a decline in production, with a temporary switch in cultivation

It is hard to imagine a north Karnataka meal without the signature jolada rotti (jowar roti). But, this important staple of the region is slowly vanishing, with area under jowar cultivation and production coming down.

The statistics of the Agriculture Department reflects this in the last three years alone; 12.63 lakh hectares down to 10.46 lakh hectares.

Farmers have been losing interest in jowar cultivation and this has been seen across Kalaburagi, Vijayapura, Bagalkot, Belagavi, Raichur and Bidar districts, which are among the highest jowar-growing districts of the State.

"There are various factors that are contributing to reduction of jowar cultivation. One of them is attraction towards growing more remunerative crops like toor," says Shankar Rao Kulkarni, Technical Officer and agriculture expert, at the Regional Agriculture Research Station here.

Other factors: relative absence of mechanisation in jowar cultivation and harvest, coupled with shortage of labour are also adding to the decline.

Elaborating on the cost factor, he said while an acre could produce six quintals of jowar and fetch up to Rs. 15,000, toor gives double the revenue despite an average production of three quintals in an acre of land.

Joint Director of the Agriculture Department, Manjunath, points out that one of the limitations of jowar is that it does not have as many by products compared to wheat or maize.

However, Mr. Kulkarni said jowar has no serious threat in the near future.

"No doubt, farmers are switching over to pulses, but it is a temporary trend. The food habits will never get wiped out completely. Even if the farmers are cultivating toor, eventually, they will have to grow jowar also because they can't eat toor like jowar. Thus, one need not fear that jowar will be out of our plates," he said.

Prices go up

The reduction of jowar production has affected the prices this year, which is good news for farmers, but hard on the pockets of consumers. Abdul Rauf Inamdar, a farmer of Utnal village here, said that this year, a quintal of jowar is sold at between Rs. 3,000 and Rs. 3,500.

"Only this year, the prices have considerably increased compared to the last five years where the cost was between Rs. 1,200 and Rs. 1,800 quintal only," he said.

The declining production of jowar has also hit the retail customer as the prices of jowar in retail market have significantly increased in the last five years.

S.N. Babaleshwar, one of the retail jowar traders says that while five years ago, the cost of jowar was between Rs. 14 and Rs.18 a kg, it has shot to Rs. 28 and 32 a kg.

"On an average, the customer who used to buy 10 kg jowar will now buy just about half of it," he said.

Changing food culture

Has reduction in production of jowar, coupled with its non-availability through the public distribution system (PDS), changing people's preference for jowar?

To an extent, people are switching to wheat-based products, says veteran writer and historian Krishna Kolhar Kulkarni, who has spent his entire life in Vijayapura.

"It is the price factor and decreased production that is prompting this. However, they have not given up eating jowar. They still love and will love to eat this staple food," he said.

Jolada rotti, a must on the plate

Jolada rotti or bhakri is the all-important dish of a typical north Karnataka meal. Making of this rotti is regarded quite an art since jowar flour is non-glutinous. It comes in two variants — the soft variety or the kadak (hard) variety. While the former is eaten fresh, the latter has a longer shelf life.

A green world in Kerala's laterite hills



The rich diversity calls for urgent conservation measures.— photo: SPECIAL ARRANGEMENT

Under their barren look, the laterite hills in northern Kerala conceal patches of biodiversity-rich small groves, known as Kanam in local parlance.

With ecological significance of these hills remaining unknown, Kanams are recorded as waste lands in revenue records and often assigned to development projects. Mining too is damaging this system. As the laterite hills are recorded as waste land since it is not productive for agriculture there

is the tendency to allot these areas to large-scale projects, which leads to the destruction of the unique ecosystem, pointed out Dr. Sreejith Namboodiri from the Kerala Forest Research Institute in Thrissur.

Realising the ecological relevance of the ecosystems supported by Kanams, which don't enjoy any legal protection, a group of scientists of the Kerala Forest Research Institute, Kerala, have taken a green step to protect them.

The team including Dr. Namboodiri and V. B. Sreekumar and two research scholars who surveyed and mapped some of the Kanams, have suggested a new concept known as Eco-Grove as the first step towards its classification and conservation. The concept was presented in an international conference on biodiversity.

The team attempted to define the newly identified ecosystem which does not come under the ambit of any of the existing systems. It is defined as manmade or natural systems dominated by trees and protected by an individual or community with or without any rituals or beliefs attached to them or law enforced by authorities.

It is protected by locals who have realised the ecological significances of Kanams and services rendered by the system, explained a scientific paper by the researchers.

The floral diversity of four Kanams (Kanayi, Vannathi, Easwaran, and Vattappoyil) in the Kavvayi River Basin caught the researchers by surprise. They were able to document 452 plant species in these four Kanams. Of these, 56 were endemic to the area and 35 were endemic to Western Ghats. They also reported that two endemic species recorded from these areas were classified as endangered and five as vulnerable to extinction in the Red List of the International Union for Conservation of Nature.

From Vattappoyil Kanam alone, they recorded the presence of 155 species of angiosperms, 52 species of birds, 86 species of butterflies, 22 species of reptiles, 17 amphibians, and 43 spiders. The presence of the rich diversity of flora and fauna indicated the importance of the unique ecosystem and called for urgent conservation measures.

'Aerosols, land-use changes may greatly weaken monsoon'

The South Asian Monsoon has been weakening since the 1950s with an increased incidence of extreme rainfall events. Now, a paper in the journal *Climate Dynamics* by Dr. R. Krishnan, Indian Institute of Tropical Meteorology, Pune, attributes this weakening to increased greenhouse gas (GHG) emissions, atmospheric aerosols and land-use changes.

The monsoon is mainly driven by thermal contrast between the Indian subcontinent and the adjoining ocean and the resultant moisture-laden winds from the ocean.

This scenario, however is changed due to the presence of greenhouse gases, aerosols in the atmosphere or if the land has been subjected to increased deforestation. GHGs trap the heat over land and sea and result in both the land and sea being warm, that is the thermal contrast is greatly reduced. This leads to a weakening of the monsoon circulation and the result is a weakened monsoon.

However, a warmed up atmosphere can hold more moisture and this situation can result in heavy rainfall over some regions.

Anthropogenic atmospheric aerosols, including sulphates, black carbon, nitrates and dust accumulate over the Indo-Gangetic plains. These reduce incoming solar radiation over northern India and the northern Indian Ocean and lead to cooling on both land and sea resulting in a lowered thermal contrast.

Hence, monsoon winds and circulation are weakened as both land and sea are cooled. Evaporation is also suppressed. Over South Asia, over 50 per cent of aerosol emissions are caused by biomass and agricultural burning. There is mounting evidence of the emissions from South Asia and China in changing the timing, spatial distribution and strength of the monsoon.

However, negative impacts of these aerosols can be reduced quickly as they have a short lifetime of few weeks compared to GHGs which can stay in the atmosphere for up to 80 years.

A third, and nevertheless important, contributor to monsoon weakening is the albedo effect of deforestation by humans. Reduced land cover increases the reflectivity (albedo effect) which leads to cooling of land in contrast to the ocean and results in a weakened monsoon circulation.

This could be particularly important over south Asia as tree fraction has decreased by 30 per cent and crop cover increased by 45 per cent in the past century. But what happens to the south Asian monsoon if say, both aerosols and GHGs are present in the atmosphere and if land-use effect (albedo, cooling of land) is present along with say, GHGs?

"It would be difficult to explain the combined effect of any of these forcings," said Dr. Deepti Singh, Postdoctoral Fellow, Lamont Doherty Earth Observatory, Columbia University and the author of a News & Views article in *Nature Climate Change* in an email to this Correspondent. "There is still more to do in understanding how these will individually affect the monsoon so I can only really speculate without data about how they would interact. We can turn to models to simulate the combined effects of these forcings. Few modelling studies have done so. The net effect of these different forcings depends on their relative magnitudes."

According to her, the study shows that in the absence of GHG forcing, the monsoon circulation would have strengthened and some regions would experience enhanced rainfall. However, since there were aerosol, land-use and GHG forcing that have opposite effects on the monsoon circulation and rainfall, the overall response of the monsoon has been muted. "Just aerosol and land-use changes would likely lead to a greater weakening of the monsoon than has been observed in recent decades," she underlined.

It is difficult to explain the net effect of green house gases, aerosols and land-use





Delegates, several from abroad, at the inaugural of the CII Partnership Summit.

Leveraging the synergy between primary and secondary sectors, the government is promoting Food Processing sector in a big way.

Food processing, including infrastructure such as cold chain and marketing, helps farmers get a higher return for their produce and the consumer also benefits with higher availability of quality food items without having to pay a higher price, Secretary Food Processing in Industries Department Girija Shankar told *The Hindu*.

Food processing industry at lower investment has good potential for generating employment, apart from making agriculture sustainable. The AP Food Processing Policy 2015-2020 has been drawn up after studying the best policies available in the country and today it is one of the best policies available.

The Department conducted road shows on the policy and has been able to attract a large number of investors and after due diligence Memorandum of Understanding (MoU) is being signed with 64 companies at the ongoing Partnership Summit. The proposals with an outlay of Rs. 5,000 crore have the potential to create direct employment for at least 60,000 persons, the Secretary said. The Policy set a target of attracting Rs. 5,000 crore investments and generating employment for 50,000 persons over the next five years. The AP Food Processing Society, under the Department, carried out due diligence and worked with the investors before finalising the proposals to be signed in the presence of the CM. Significantly, nearly all the investments are being made by companies from within India.

The Policy has drawn up a number of industry-friendly features, including declaring Food Processing Industry a Public Utility under Industrial Disputes Act. The investors would be reimbursed costs like the land conversion fees, registration fee and stamp duty. During the duration of the policy investors can avail a power tariff subsidy of Rs 1.5 per unit.

Taxes like VAT/CST/SGST would be reimbursed depending upon the scale of operations.

The investors would also be given interest subsidy. There are fiscal incentives to investors proposing to establish Mega Food Parks, the Secretary said.

'Pacts will be signed with 64 companies during the CII Partnership Summit'

Relief given to families of farmers

The All India Kisan Sabha's Tamil Nadu Vivasayigal Sangam gave away relief to families of five farmers who had ended their lives, at a function organised here on Sunday.

Its national general secretary Hannan Mulla gave away Rs. 50,000 each from the Communist Party of India funds to the families of cane grower Sambandam of Andakkudi in Thanjavur district, cotton farmer Rajaram of Sidhanvazhoor in Tiruvarur district, cotton grower Mathialagan of Poongavoor in Tiruvarur district, tissue culture banana farmer Alaguvel of Uppukottai in Theni district and paddy grower Ramalingam of Perumazhai village near Talaignayar in Nagapattinam district.

Tamil Nadu Vivasayigal Sangam state president and MLA K. Balakrishnan presided over the programme. State general secretary P. Shanmugham, Thanjavur district secretary Samy Natarajan highlighted the plight of farmers and the indifference of the State Government. They wanted a comprehensive study of the status of agriculture, livelihood resources of farmers and ways to improve their lot instead of allowing them to die under duress.

They wanted the Government to address the issue with sympathy.

"State government's schemes raise income of rural poor"

Long-term schemes of the State government not only boost milk production but also increase cattle and goat population, and they will ultimately increase the income of the rural poor, according to Finance Minister O. Paneerselvam.

Distributing laptops to school students and incentives to employees of the Department of Cooperatives and primary agricultural cooperative societies

here on Sunday, he said that milk production in the State had gone up to 28 lakh litres owing to distribution of cattle and incentives given to cattle growers and milk producer societies.

The 7,800 free goats provided to the rural poor in the State had delivered 53,000 lambs, raising their income substantially. In the last four years, the government had spent one of fourth of its total revenue for education. Laptops helped rural students get easy access to the latest scientific developments and update their knowledge. Free distribution of educational aid and equipment, and freebies such as notebooks, bicycles and stationery items abolished disparities between rural and urban students, the Minister said.

The number of students dropping out of schools owing financial problems was reduced sharply, he noted. The government was according top priority to imparting education to girl children. Increase in marriage assistance, girl child deposit scheme and freebies were to bring all girl children to school and to help them complete their higher education, he added.

Mr. Paneerselvam distributed laptops to 130 students, incentives to 14 cooperatives staff and welfare aid to 96 beneficiaries at the function.

He also distributed freebies and gold for 'thali' to several beneficiaries at another function.

Cotton auction fetches Rs. 1.74 crore

Cotton was auctioned for Rs. 1.74 crore at the Konganapuram branch of the Tiruchengode Agricultural Producers Cooperative Marketing Society on Saturday. While DCH variety fetched a price between Rs. 6,032 and Rs. 6,513 per 100 kg bag.

Crop loss: Centre releases Rs. 1,540.2 cr. input subsidy to State

In the wake of severe drought and crop loss in 27 districts, the Centre has released Rs. 1,540.2 crore to the State for providing input subsidy for agricultural and horticultural famers.

The State had submitted a memorandum to the Centre seeking compensation of Rs. 2,278.19 crore for crop loss. Standing crops on 30.76 lakh hectares were damaged during the 2015 monsoon season due to erratic rainfall.

The Centre has sanctioned Rs. 1,388.67 crore for providing input subsidy to farmers who planted agricultural crops and Rs. 136.64 crore for horticultural crops. A sum of Rs. 2.92 crore and Rs. 11.97 crore, respectively, was released for animal husbandry and drinking water related works, a Government Order said.

The amount released for districts is as follows: Ballari (Rs. 46.5 crore), Koppal (Rs. 63.75 crore), Raichur (Rs. 35.4 crore), Kalaburagi (Rs. 197.55 crore), Yadgir (Rs. 75.35 crore), Bidar (Rs. 89.81 crore), Belagavi (Rs. 241.5 crore), Bagalkot (Rs. 37.61 crore), Vijayapura (Rs. 115.49 crore), Gadag (Rs. 69.29 crore), Haveri (Rs. 26.7 crore), Dharwad (Rs. 94.81 crore), Bengaluru Rural (Rs. 3.42 crore), Kolar (Rs. 48.06 crore), Chickballapur (Rs. 44.46 crore), Tumakuru (Rs. 72.49 crore), Chitradurga (Rs. 58.32 crore), Davangere (Rs. 53.37 crore), Chamarajanagar (Rs. 17.46 crore), Mysuru (Rs. 35.7 crore), Mandya (Rs. 28.48 crore), Hassan (Rs. 50.67 crore), Chikkamagaluru (Rs. 21.11 crore), Shivamogga (Rs. 1.67 crore) and Uttara Kannada (Rs. 11.1 crore).

The order has directed the taluk tahsildars to deposit money in the bank account of farmers through RTGS/NEFT. Deputy Commissioners have been instructed to pay compensation only for 68 per cent of the crop loss.

A riot of colour welcomes visitors at flower show



A flower show organised by the Thrissur Agri-Horticultural Society at Thekkinkadu Maidan in Thrissur on Sunday.—Photo: K.K. Najeeb



The 38th Thrissur Flower show at Thekkinkadu Maidan here is drawing huge crowd from far and near.

The show, organised by the Thrissur Agri-Horticultural Society in association with Thrissur Corporation, District Panchayat, Kerala Agricultural University, Veterinary University, Agriculture Department and the Chochin Devaswom Board showcases colourful exotic flowers.

Agriculture and veterinary universities and the Kerala Forest ad Research Institute have set up pavilions at the show. Colourful roses, attractive array of bougainvillea, cacti and euphoria are presenting a visual treat for the connoisseurs.

Fascinating collection of bonsai trees, vertical farming models and colourful roses are attracting visitors. Breathtaking floral arrangements are part of the festival. The decorations in traditional and western styles are of course a delight for the eyes.

Competitions

The organisers have arranged various competitions. While students can participate in painting and garden making, women can give a try in Malayali Manka competition.

There is a competition for photography too. The pet show and competitions in fresh and dry flower arrangements and vegetable carving are crowd pullers.

A seminar on farming has been arranged in connection with the show.

Various cultural programmes will be conducted every day.

The show will conclude on January 17.

Model coconut farming in 7 panchayats

Agriculture Department, farmer forums, local bodies part of project



A frontline scientific demonstration project for cultivation of coconut is under way at seven selected panchayats across the State.

The project is being taken up in the panchayats of Elakamon in Thiruvananthapuram, Kulasekharapuram in Kollam, Cherthala south in Alappuzha, Nedumpuram in Pathanamthitta, Kooroppada in Kottayam, Vellangallur in Thrissur and Parakkadavu in Kozhikode.

Launched in 2015

The project, launched in 2015, focuses on farmer-participatory strategies and is being undertaken in selected panchayats coming under the Keragramam scheme of the State government by the Indian Council of Agriculture Research (ICAR) through the Central Plantation Crop Research Institute, in association with Krishi Vignan Kendras.

The implementation of the project, done in association with the Department of Agriculture, farmer organisations and local governments, aims at effective dissemination of technologies, according to B. Krishna Kumar, head, CPCRI centre, Kayamkulam.

Earlier, a demonstration project was implemented in 1999-2003 in 25 hectares belonging to 208 farmers. As many as 5,000 palms were brought under the project. Adoption of management package had led to an increase in production, from 24 nuts to 46 nuts a palm a year, corresponding to 91.4 per cent yield improvement in root-wilt disease-prone coconut farms.

Three high-yielding varieties of coconut have been released by the CPCRI for use in coconut farms in Kerala with a view to improving the income of farmers. The three varieties, namely Kalparaksha, Kalpasree and Kalpasankara, have been recommended for cultivation in root-wilt disease-endemic zones of the State. Over 38,000 quality seedlings of the three varieties have been distributed to farmers during the past seven years from the CPCRI regional centre at Kayamkulam.

Root-wilt disease, a debilitating disease found in coconut farms, is managed through farm and palm hygiene, identification of disease-free mother palms and rejuvenation using disease-tolerant and disease-resistant coconut hybrids and varieties.

The management techniques consist of strategies such as bio-priming of seedlings with bio-inoculation, liming of soil, soil-test-based fertilizer application, soil moisture conservation measures such as mulching, husk burial and management of leaf-rot using bio-agents.

DAC-ELISA (Double Antibody Coated - Enzyme Linked Immonosorbent Assay) has been standardised for the screening of mother palms to ascertain on the disease status. The technique has been extensively utilised to identify mother palms for collection of seed nuts.

Water released from Varahi distributory



Vinay Kumar Sorake, Urban Development Minister, unveiling the plaque to mark the release of water from distributory number one of Varahi Left Bank Canal of the Varahi Irrigation Project at Kullanje in Udupi district on Sunday.

While most farmers are happy after the release of water from distributory number one of the Varahi Left Bank Canal (VLBC) of Varahi Irrigation Project for summer season for irrigation purposes, some said that field channels had got blocked due to accumulation of soil.

The water from the distributory gets released to the field channels to irrigate the fields. Some other farmers said that water from the distributory did not reach fields on the uplands.

Mallika Naik, who grows arecanut, coconuts and vegetables on 40 cents of land, said that the water was being released from the distributory to the field channels for the last two days. This had helped irrigate her fields in the low-lands. But she still had to depend on her pumpset to pump water from the nearby Halady rivulet to water her fields on the upland, she said.

Vishalakshi Naik, a resident, said that the release of water from the distributory was providing irrigation to the fields of about 40 farmers living in Kallunje village in Shankarnarayana Gram Panchayat. "The water is flowing smoothly in the field channels on my agricultural land for the last two days," she said.

Another farmer Chandu Naik was sore about the soil being dumped on a portion of his field during the construction work of the distributory. "Due to reckless dumping, I cannot use a small portion of my field. But water has been flowing to field channels in my fields," he said.

However, Sanjeeva, who cultivates are canut and coconuts on five acres of five acres of land, said that the flow of water into the field channels had got blocked some places due to accumulation of soil. This might pose a problem, he said. But Shiva Mogaveera, who cultivates paddy and are canut on his 2.65 acres of land, said that in some places field channels had got blocked due to accumulation of soil during construction of roads and for other reasons. "The farmers should put in their efforts and remove the soil blockages in the field channels. We cannot expect the government to come and do everything. Water is flowing in channels. Is that not great?" he said.

Farmers seek higher procurement price

Want Rs. 3,000 per quintal of paddy, Rs. 5,000 for a tonne of cane

Farmers have urged the Union and State governments to announce a procurement price of Rs. 3,000 per quintal of paddy, Rs. 5,000 per tonne of sugarcane, Rs. 25,000 per quintal of turmeric and also raise the flood relief. A resolution was adopted during a recent meeting of Thamizhaga Vivasaigal Sangam, Vellore.

The association demanded a procurement price of Rs. 30 for a litre of milk, a release said. The members demanded that the government increase the relief for flood-hit farmers to Rs. 50,000 per acre. They also wanted bank and cooperative loans to be waived for the farmers.

The rural job scheme should be implemented for agriculture alone, the association said, while demanding interlinking of rivers in south India.

Flying squad sought

The association also wanted action against leather industries that continue to discharge untreated effluents in the open and sought the constitution of a flying squad to check pollution of the Palar by these industries.

The farmers wanted diesel to be provided at 50 per cent subsidy for agriculture-related works, as the frequent increase in diesel price was affecting them.

The members also urged the Centre to take steps to control the price rise of fertilizers.

They wanted a monthly pension of Rs. 3,000 to be given to farmers above the age of 60, and extend the social security schemes meant for rural agricultural labourers to the farmers too.

27 government departments set up stalls at expo



Visitors look at exhibits at the stall put up by the Forest Department.—Photo: C. Venkatachalapathy

The government exhibition-2016 is under way on the Vellore Fort Ground here.

Twenty seven government departments have set up stalls to showcase their schemes and activities at the exhibition being organised by the Information and Public Relations Department.

The Agriculture Department's stall drew a lot of children as it had models of tiger, dolphin and dinosaur decorated with millets and pulses such as maize and green gram.

The Department of Forest displayed samples of plants and trees, while the Vellore Corporation's stall had models of rainwater harvesting and Combined Water Supply Scheme. The other departments that put up stall included horticulture, health, town panchayat, rural development and social welfare. The stall of the Department of School Education saw plenty of interaction between students and visitors. A number of students displayed science exhibits.

Two class VIII students of Sri Narayani Vidyalaya came up with a natural mosquito repellent. They said some commercially available mosquito repellents emitted plenty of smoke. Hence, they came up with a solution comprising yeast and sugar to get rid of mosquitoes.

Another exhibit that drew the attention of visitors was a home-made air cooler using a plastic drum containing ice cubes. The student fixed a fan on

top of the drum and inserted pipes in the middle, allowing cool air from inside the drum to flow through the pipes.

Other exhibits included those on healthy and unhealthy food and traffic rules.

The Reserve Bank of India is also taking part in the exhibition being held till January 24. A special counter will be open from 5 p.m. to 7.30 p.m. to exchange soiled notes and distribute coins. RBI will depute its staffers to educate the public on currency, forex and other functions of the bank, a release said.

Paddy procurement gets to a close in Gobi taluk

Insufficient manpower in TNCSC's direct procurement centres was a major deterrent

Paddy procurement by Tamil Nadu Civil Supplies Corporation (TNCSC) has almost been completed in the ayacut areas of Thadapalli-Arakankottai canals.

This time around, paddy was procured through nine direct procurement centres (DPC), and farmers had a reason to feel relieved on two counts: increase in procurement price and direct remittance of amount in the bank accounts of the farmers by the Primary Agricultural Cooperative Banks.

The Tamil Nadu Civil Supplies Corporation was not able to deploy sufficient manpower at the DPCs, due to which there was a backlog, and farmers found themselves forced to sell their produce in the open market, Subi Thalapathi, president of Thadapallai-Arakankottai Ayacut Farmers' Association said.

Rates

As per the revised rates, the farmers were given Rs. 1,460 per quintal, inclusive of incentive of Rs. 50, for coarse variety. For the fine variety, the rate was Rs. 1,520 per quintal along with incentive of Rs. 70. This time, however, there was not much of a difference in the procurement rate by the DPCs and open market. But, it was necessary for the TNCSC to strengthen

manpower since farmers in inaccessible locations prefer to sell their produce at the DPCs, Mr. Thalapathy said.

The procurement was carried out at nine centres: N.G. Palayam, T.N. Palayam, Kookalur, Elur (Arakankottai), Pudukkaraipudur, Puduvalliampalayam, Kasipalayam, Kallipatti and Athani.

'A few farmers found themselves forced to sell their produce in the open market'

Food production to touch 170 lakh tonnes in 2015-16

Minister says State's average paddy yield is 3,100 kg a hectare



Agriculture Minister R. Vaithilingam (second from right) inspecting paddy varieties at the Farmers' Day exhibition held at the Tamil Nadu Agricultural University in Coimbatore. Minister S.P. Velumani (right) and Collector Archana Patnaik (left) are in the picture.— Photo: M. Periasamy

Tamil Nadu's food production will increase to 170 lakh tonnes in 2015-16, said Agriculture Minister R. Vaithilingam at the Farmers' Day function in Tamil Nadu Agricultural University (TNAU) on Friday.

He said that at the start of the financial year the State had fixed 145 lakh tonnes as the target but the efforts of the government, TNAU, and farmers had ensured that the target was surpassed.

In 2014-15, the government had fixed 128 lakh tonnes as the target.

The State's food production had increased after the AIADMK Government assumed office and had declared that doubling food production and tripling farmers' income was its goal.

For long the State's annual production had stood at around 75 lakh tonnes. Mr. Vaithilingam said that in 1970-71, the State's average paddy yield was 1,900 kg a hectare. Now it stood at 3,100 kg a hectare. Likewise, the average yield of small cereals and pulses had increased respectively to 2,394 kg a hectare, and 572 kg a hectare.

This was because of the TNAU releasing high-yielding, pest-resistant crop varieties and taking it to the farmers.

So far, the TNAU has released 799 high-yielding varieties of various crops, and this year it had introduced eight new varieties and three farm implements.

State Agriculture Director M. Rajendran said the State stood first in terms of agriculture productivity and had even surpassed Punjab, where canal irrigation is strong. In pulses too the State is doing extremely well and has won the Krishi Karman Award.

TNAU Vice-Chancellor K. Ramasamy said that after a long time the State Government had given money to carry out research. It usually only supported the institution to meet salary expenses. This year the government's support for research was Rs. 75 lakh and it was Rs. 23 lakh more than last year's.

He added that if the State Government could promise water for every farmer in the cultivation season, it could work wonders.

Pollachi V. Jayaraman, Deputy Speaker, spoke on the need for drip irrigating the Parambikulam-Aliyar Project canal ayacut areas for improving production.

Poly green houses planned in more areas in Tirupur

To enhance the yield of vegetables and flowers, the Department of Horticulture is all set to bring crops raised over an expanse of 33,000 sq m under 'controlled weather conditions' with the participation of farmers.

Deputy Director of Horticulture R. Chithra Devi told *The Hindu* that poly green houses would be set up on the said locations to help the farmers raise the crop under controlled conditions.

The project will help raise some rarely cultivated crops in the district like capsicum and other crops like tomato, and hybrid cucumber besides cut flowers in Udumalpet, Gudimangalam, Avinashi, Pongalur, Kangayam and Madathukulam blocks.

"We will extend subsidy to the participating farmers at the rate of 50 per cent of the cost subjected to a maximum of Rs. 4.75 lakh for an area not exceeding 4,000 sq m per farmer," said horticulture department officials.

The financial assistance will be provided from the corpus created under three government-sponsored schemes namely Rashtriya Krishi Vijkas Yojana, National Horticulture Mission and Rainfed Agriculture Development.

According to agriculture experts, raising of crops under poly green houses will enable the farmers to maintain optimum temperature and humidity needed for healthy growing of the plants.

"Apart from that, the structures will protect the plants from harmful ultra violet rays and adverse weather and pest control will become easier," they said.

Ms. Chithra Devi said yield and income could be increased by two to three times when cultivated under controlled weather conditions.

'Awaiting report on pink bollworm attack'

Centre reduced funds under irrigation scheme all of a sudden, says Siddaramaiah

Chief Minister Siddaramaiah has said that the State government is awaiting a comprehensive report on the crop loss suffered by Bt cotton growers due to pink bollworm attack. He was interacting with presspersons at Deodurg in Raichur district on Sunday. "Once we get a detailed report, we will take action. Only after receiving the report, we will decide whether Bt cotton seed companies should be held responsible for the loss and how much should be released as compensation to farmers," he said.

Mr. Siddaramaiah said that the State government had spent around Rs. 33,000 crore in the last three budgets. "We are spending over Rs. 10,000 crore every year for irrigation projects in north Karnataka. We will continue to allocate the same amount in the remaining budgets well," he said.

Mr. Siddaramaiah alleged that the Union government had reduced the funds to the State under the Accelerated Irrigation Benefits Programme (AIBP) this year. "The Union government allocated only Rs. 1,000 crore for the entire country under the AIBP. This year, the State is receiving a small amount under the scheme. We have written to Union government objecting to the deduction in fund allocation," he said.

Government spent around Rs. 33,000 crore on irrigation projects in NK: Chief Minister

Parasitic weed gives tobacco ryots the jitters



Tobacco crop in 5,000 hectares in Prakasam district has been affected by Orabanche weed.—- Photo: Kommuri Srinivas

The tobacco sector in Prakasam district is facing a new crisis as the growers are spending sleepless nights owing to rapid spreads of a parasitic weed *Orabanche cernua* in their fields.

Tobacco crop in over 5,000 hectares in the district has been affected by the parasite and the problem is more severe in Podili and Tangutur regions, according to Indian Tobacco Association (ITA) sources.

The ryots in the traditional tobacco growing areas of Southern Black Soil(SBS) and Southern Light Soil (SLS) have grown the crop in 48,000 hectares as against the 85,000 hectares last year. The only solace for the growers is a better crop yield with bright grade tobacco this year when compared to last year, ITA sources say.

In the present situation, the production may be between 70 to 75 million kg in the traditional tobacco growing areas of SLS and SBS as against 125 million kg produced last year in the areas coming under the SBS and SLS auction platforms. "Orabanche cernua is a debilitating holophrastic weed which affect the production by 30 to 70 per cent. The infestation is rampant in patches and its impact on the crop may be severe this year," says Tobacco Board SBS Regional Manager G. Bhaskar Reddy.

B.S.R.Reddy, senior scientist at the ITC, suggests that the farmers went for light irrigation to overcome the problem. However, excessive irrigation would affect the quality of crop, he warns.

Inter-cropping of fenugreek and trap crops like sorghum, green gram and gingely will ward off the parasite. Jowar and gingely can be grown as a kharif crop to control the parasite, he suggests, adding that under no circumstances brinjal and chillies should be grown the nearby fields. Meanwhile, Central Tobacco Research Institute Director Anuradha suggests that farmers must go for crop rotations, summer ploughing and grow sun hemp as green manure crop to cope up with the parasitic infestation.

Dr. Trimurthulu of LAM farm, Guntur, advocates integrating cultural and chemical methods of control and use of bio-control agents will ensure sustainability in production.

Orabanche affects the production by 30 to 70 per cent. The infestation is rampant, and its impact on the crop may be severe this year

- G. Bhaskar Reddy, Tobacco Board SBS Regional Manager

Gurgaon goes the organic way



With growing awareness about harmful effects of pesticides in vegetables and poultry products, the demand for organic products has grown several times over in Gurgaon over the past few years.

Gagan Deep Singh, who runs an organic food store named "Live Organic" in Gurgaon, told *The Hindu*that the market for organic products in the Millennium City has increased substantially.

"My wife and I left our corporate jobs to start an organic products store in 2010. In less than five years, our turnover has increased from Rs.10 lakh to Rs.3.2 crore annually. Though we supply products in Delhi and Noida, almost 85 per cent of our demand comes from Gurgaon itself," said Mr. Singh, who holds a Masters' Degree in Business Management.

His wife Harpeet added that they had started with supplying milk five years ago and now their portfolio comprises almost all kinds of organic products. "Growing awareness and high income are two major factors contributing to the growing market in Gurgaon. At the national level, the organic product market is worth over Rs.300 crore and growing at the rate of over 40 per cent to 50 per cent annually," she added.

Most organic vegetables sold at such stores in Gurgaon are supplied by farmers in Sonipat.

"We are a group of over 300 farmers in Sonipat growing and supplying organic vegetables. We quit conventional farming to adopt organic farming 10 years ago and have even formed a Kisan Welfare Club. The vegetables grown by us are certified," said Kishore Dahiya, who heads the club.

"The government should compensate farmers for the loss of income in the early years during the switchover from conventional to organic farming. Also, there is no provision for training of such farmers. The government should also set up some certification agency to certify organic products at reasonable fee," he added.

With help from Sushant Lok Residents' Welfare Association, the farmers have also started selling their organic products at a weekly market, where consumers buy directly from farmers. Besides Sonipat, farmers from nearby areas like Sohna, Damdama and Faridabad too sell their produce in this market.

The farmers are allowed to charge customers 20 per cent higher than what they charge a middleman.

"If a farmer sells the produce at Rs.100 per kg to a middleman, we allow him to sell it for Rs.120 per kg to the customer, who normally gets it at mark up of 50 per cent to 60 per cent," said an RWA member.

Most organic vegetables sold

in Gurgaon stores are supplied by farmers in Sonipat

'University working on pest-resistant variety of chilli'

D.L. Maheshwar, Vice-Chancellor, University of Horticulture Sciences, Bagalkot, has said that the university is developing an improved and pest-resistant variety of chilli at Developing of Haveri district.

He was inaugurating a seminar on 'Production of chilli and turmeric: challenges and opportunities', here on Friday.

Mr. Maheshwar said that the research on these two was going on within the jurisdiction of the university. He said that turmeric of Mahalingpur was popular in the country.

"The university is basically focusing on developing a pest-resistant variety which will help farmers save money on pesticides," Dr. Maheshwar said.

Cultivation

He said that chilli was cultivated on 8 lakh hectares of land in the country and the annual production was around 16 lakh tonnes. Similarly, turmeric was being cultivated on 2.32 lakh ha with the annual production reaching 11 lakh tonnes.

Narayansa Bhandge, MLC, Indian spices were gaining popularity across the world. Considering the increasing demand, the university should focus on involving more farmers and encourage them to cultivate spices.

Organic manure

He also appealed to the university to encourage farmers to use organic manure instead of chemical fertilizer, which he said, was affecting the soil fertility.

The former Vice-Chancellor, Shankar Dandin was present.

The research is undertaken by University of Horticulture Sciences, Bagalkot

It will help farmers save money on pesticides, says D. L. Maheshwar, VC

SHGs lag behind in dairy business: study

A recent study on dairying by self-help groups (SHGs) and non-self-help groups in Kannur and Kasaragod districts has found that non-self-help group members are getting more income through dairying than the others.

The study was conducted by the Directorate of Entrepreneurship of Kerala Veterinary and Animal Sciences University (KVASU).

Five each SHGs and non-SHGs with minimum of 10 members from each block, including Nileswar and Kanhangad blocks from Kasaragod and Payyanur, Kannur, Koothuparamba and Thalassery blocks from Kannur district, were selected for further study through well structured interviews.

Majority of the non-SHG members consider dairying as their means of livelihood. But SHG group members have other sources of income. Majority of the respondents in both groups own land below 25 cents and female members in their families are involved in dairy business.

The study reveals that even though SHG members are educated, , the non-SHG members have more knowledge and skill in select areas. However, SHG members could sell more value-added milk products than non-SHG members.

Most of the non-SHG members sell milk at cooperative societies and are getting around Rs.30 per litre. Daily average milk production in both groups ranges from 5 to 15 litres a day. Both groups say an increase in the cost of cattle feed reduces their profit margin. Non-SHG members of Kanhangad and SHG members of Payyannur earn more income when compared to farmers of other blocks.

"There is considerable difference between both groups in income, production, consumption and marketed surplus of milk," says T.P. Sethumadhavan, Principal Investigator of the project. Facilitating more linkages with banks, research institutions, milk unions and stakeholder departments will ensure sustainability among SHG and non-SHG groups, Dr. Sethumadhavan who is also the Director of Entrepreneurship of KVASU, adds. The second phase of the study has been commenced in Malappuram, Wayanad and Kozhikode districts.

Non-SHG members have more knowledge and skill in select areas, says KVASU study.

Farmers get ready for rabi season

Krishi Vigyank Kendra, Sikkal, holds interaction with farmers

A one-day awareness programme on "preliminary steps for rabi season" was organised under the auspices of Krishi Vigyan Kendra at Sikkal near here on Saturday. Demonstration sessions and interaction were held in which scientists from Krishi Vigyan Kendra and the Tamil Nadu Rice Research Station, Aduthurai, clarified the farmers' doubts.

Explaining the objective of the programme, A. Anuradha, Programme Coordinator, KVK, Sikkal, said the awareness aimed at guiding farmers towards choosing the right crop for their soil and the importance of integrated pest management. She said the season was used for raising pulses, coconut, groundnut, and vegetables.

Growers strike gold with chrysanths



Samanthi (chrysanthemum) flowers in full bloom on a field at Deevattipatti in Salem district.—PHOTO: E. LAKSHMI NARAYANAN

ith Pongal festival fast approaching, the harvesting of 'samanthi' flowers chrysanthemum is in full swing in villages in Omalur block in the district. The villages of Theevattipatti; Mookkanur; Gundukkal; Kongupatti; Karuvalli; Kanjanayakkanpatti; Pannapatti are the major samanthipoo growing centres in the western districts.

A large number of farmers have raised various varieties of samanthipoo such as 'chandni,' 'white poornima,' 'pink poornima,' 'yellow poornima,' 'nattu samanthi,' and 'white Rajamalar' in hundreds of acres in these villages.

These farmers were raising the flowers using water from wells, and borewells for the last three years.

As the district received good rainfall in the recent months, ground water level has gone up helping farmers to increase the acreage. The 'samanthipoo' season usually commences in August. The heavy rain experienced in the district damaged the plants in about 50 per cent of the area.

The fields of the farmers who had adopted organic methods to raise the plants, however, escaped the fury of the rain.

At present, the flowers have fully bloomed. As a majority of the flower fields in the above villages are situated on the Salem – Bengalur national highway, the fields are a cynosure of all eyes.

The nearby Poosaripatti flower market, a major flower market in the western region, is getting heavy loads of samanthipoo in the last few days. Traders from Bengaluru, Chennai, Hosur, and Madurai have been thronging this market. More than ten tonnes of flowers are marketed through the Poosaripatti market daily.

On auspicious Wednesdays and Thursdays, the quantity gets doubled.

K. Kannan of Theevattipatti, who has raised all varieties of samanthipoo in six acres along the Bengaulur highway is a happy man, as the flower plants raised using organic techniques stood the onslaught of heavy rain during November and December.

The harvesting is in full swing now.

The flower price which stood at Rs. 140 a kg at the Poosaripatti Market before the New Year Day has come down to Rs. 90.

The flower farmers are safe this season, as the samanthipoo was fetching a meagre price of about Rs. 30 a kg during the last Pongal season.

He expects the price to go up to Rs. 150 a kg as the Pongal day nears.

The traders, particularly from Bengaluru and Chennai, are making direct purchase from the gardens itself.

The traders at Poosaripatti Market say that about 50 tonnes of samanthipoo will be marketed every day here from January 12.

Centre plans to revise tea garden wages



Weeds grow amongst the tea shrubs at the closed Bundapani Tea Garden in Alipurduar district, some 145 kms from Siliguri on January 3,2016.

The State and the Union government will take steps to reopen tea gardens in West Bengal.

Union Minister of Commerce Nirmala Sitharaman has proposed a revised minimum wage for tea garden workers in West Bengal as the government and the State reached an agreement to reopen the gardens, a trade union official said.

A majority of the workers accepted the government's offer for a minimum wage of about Rs. 250.

"The proposal made in the meeting was that along with Rs. 122.50 a fringe benefit of Rs.109 will be added and the minimum wages will be fixed near Rs. 250," a senior political leader present at the meeting told *The Hindu* on Tuesday.

The State and the Union government will take steps to reopen tea gardens of the region and ensure that non–functional or abandoned tea gardens function properly.

"Everything concerning the tea gardens was discussed at the meeting. Both the government agreed that the situation needs their intervention and is necessary to open the tea gardens," Zia- Ul-Alam, Convenor of Joint Forum of Trade Unions, an umbrella organisation of 24 trade unions working in tea sector told *The Hindu*.

Ms. Sitharaman held a meeting with West Bengal's Education Minister Partha Chatterjee and the representatives of different tea garden unions at Siliguri in Darjeeling district. She visited Danguajhar tea garden (run by Goodricke group) in the State's Jalpaiguri district.

She also met G. P. Goenka, the chairperson of Duncans Group, which owns majority of the abandoned tea gardens of the northern region of the state. "The Union minister categorically said that the provision of minimum wages should be categorically implemented in the tea gardens," Kiran Kalindi, President of Progressive Plantation Tea Workers Union said.

Amendments to certain Acts in tea plantations which has been raised by Chief Minister Mamata Banerjee in a letter to Prime Minister Narendra Modi also came up for discussion during the meeting

There are about a dozen closed tea gardens in the region and about 22 of the gardens are either abandoned or non functional.

Coconut nursery planned at Seed Farm



To encourage people grow coconut even in their backyards and increase the overall productivity, the Department of Agriculture is all set to commence a coconut nursery on the State Seed Farm premises at Pongalur for production of hybrid varieties that suit local conditions.

The facility, planned at an outlay of Rs. 23 lakh from the government, will be set up on four acres of the 39.05 acre campus of State Seed Farm.

"This is the first initiative of the kind by the department in the district. In the first set, we plan to raise 30,000 seedlings of Tall X Dwarf variety of coconut.

Quantity

The quantity will then be gradually increased to a maximum of 45,000 seedlings in every set over the years," Joint Director of Agriculture A. Mahendran told *The Hindu*.

He added that crossing to produce the hybrid varieties would be carried out at progressive farms, and the farmers would be paid attractive amounts for the nuts procured.

The nuts, thus, procured, will be raised first in the shade on the Seed Farm campus for three months and then under normal conditions for another three to four months before it is sold to farmers/growers.

"We will be distributing the seedlings at Rs. 50 a seedling against the market price of over Rs. 100," said Mr. Mahendran.

The main benefits cited by the officials in raising the Tall X Dwarf variety vis-a-vis the traditional tall variety are that the hybrid variety would give better yield, and the height of the tree is less. It could be grown in backyards in the congested city environment too apart from raising it in general farms. The coconut acreage in the district comes to 56,823 ha in the district.

This will go up once the nursery project takes off, said agriculture department officials.



State govt to look into future trading at NCDEx

Records from the market showed that since July 2015 the platform had seen trading of over 35 lakh tonnes of sugar priced at Rs 9,318.41 crore.

THE STATE government will soon announce a mechanism to investigate the trading of sugar at the NCDEx platform. Both chief minister Devendra Fadnavis and cooperation minister Chandrakant Patil said that while price of sugar on the platform was high, millers have been complaining of no demand – a phenomenon which needs to be investigated.

On January 2, The Indian Express had reported how both prices and volume of sugar on the NCDEx platform had seen a high over the last few days, but on ground level, the millers see no effect on demand ("Sugar prices up but mill owners feel no gain", The Indian Express January 2).

Records from the market showed that since July 2015 the platform had seen trading of over 35 lakh tonnes of sugar priced at Rs 9,318.41 crore.

Millers and growers had said that in many cases, the sugar traded on the platform was not even physically delivered. Many have also said the trade on the platform could be just speculative in nature. Swabhimani Paksha, MP, had earlier this week submitted a letter to Union Finance Minister Arun Jatiley asking for a thorough investigation in the trading on the market.

Fadnavis, who was speaking at the annual general body meeting of the Pune-based Vasantdada Sugar Institute, said the market forces that are causing volatility needs to be investigated.

"Price volatility is some thing to be taken seriously. Also, many of the traders do not result in physical lifting of the stock, which needs to looked into," he said.

The chief minister said that although lakes of tonnes of sugar is traded on the NCDEx platform, not even 25-30 per cent of it is delivered. This he said was a matter of grave concern and has to be investigated in full.

Meanwhile, Patil, speaking on the sidelines, said that the state government will be soon setting up a suitable committee to look into the matter. "In order to form a committee or a commission, we need to have the proper legal framework for it. The matter will be put before the state cabinet, during its next meeting and work will start on that," he said.

Shetti, on his part, said he has been raising the issue with both the state and central government for the last six years. "I had brought the matter to the notice of Prithviraj Chavan, when he was in the Prime Minister's Office. But due to intervention of a powerful leader who had vested interest in the matter, it was not looked into," he said.

The Challenges

The meeting also saw former union agriculture minister Sharad Pawar talking about the challenges before the industry. Pawar, who is also the president of VSI asked millers to speed up exports in order to meet the targets set by the Central government by individual millers.

While the state has a total export quota of around 14 lakh tonnes, just around 2 lakh tonnes have been exported so far. Millers have cited better domestic prices as their reason for preferring domestic markets over export.

Till date around export contracts 3.45 lakh tonnes of sugar has been signed of which 1.45 lakh tonnes has been dispatched.

Fadnavis on his part said the reluctance of millers to export can destabilise the markets again and force the government to intervene.

"During informal talks, we have pointed out that in order to help the industry we might have to make it compulsory for the millers to sell their export quota in the public distribution system to keep the market stable," he said. In case, the government mandates mills will have to sell sugar at a cost of Rs 25 per kg incurring loss.

Govt set to launch new crop insurance scheme

Will bring down rate of premium to be paid by farmers, govt will pay the rest; Cabinet clearance likely on January 13



The proposal also envisages a cap of 5 per cent on premium a farmer has to pay to get horticulture crops (including fruits, vegetables and commercial crops) insured. (Source: AP)

In a major policy outreach towards farmers, the Centre is set to roll out a new Crop Insurance Scheme through which it will bring down the rate of premium to be paid by farmers to a maximum of 2.5 per cent of the sum insured. The remainder will be paid by the government. Currently, farmers have to pay premium ranging from 4 to 15 per cent to insure crops.

Government sources told The Sunday Express that following several rounds of discussion, the government has decided to go ahead with bringing down and fixing the maximum premium amount.

Under the new formula, a farmer will not have to pay more than 2.5 per cent of the sum insured as premium for kharif crops (paddy, maize, millet, etc), 2 per cent for all rabi crops except wheat, 1.5 per cent for wheat and 2 per cent for all pulses. The proposal also envisages a cap of 5 per cent on premium a farmer has to pay to get horticulture crops (including fruits, vegetables and commercial crops) insured. The Union Cabinet is likely to clear this in its upcoming meeting on January 13.

"The remaining premium will be paid by the Centre and the state governments," said an official. The Centre's payout of its share of premium is expected to rise from the current Rs 3,000 crore to Rs 7,500 crore as a result of the new provisions, officials said.

The Centre's move, sources said, follows a growing realisation that farmers were being made to pay high premiums under the existing scheme. As an illustration, officials cited the case of Lalitpur in Uttar Pradesh's

Bundelkhand region, where the actual premium for paddy is 22 per cent of the sum insured and farmers have to pay a premium as high as 5.75 per cent. "Once the new scheme kicks in, farmers in high-risk areas such as Lalitpur would stand to benefit the most since they wouldn't have to pay a premium more than 2.5 per cent," an official said.

By lowering premiums substantially, the government is banking on increasing the coverage of farmers from the existing 23 per cent to 50 per cent in the next two to three years. While Uttar Pradesh, Rajasthan, Uttarakhand, Kerala and a few districts in Andhra Pradesh have notified the existing crop insurance scheme, states like Punjab and Haryana have not done it so far.

The new scheme will also seek to address a long-standing demand of farmers and provide farm-level assessment for localised calamities, including hailstorms, unseasonal rains, landslides and inundation. "Because of area-based assessments in which the results of crop cutting experiments over a small area are used to pay claims for a larger area, farm-level assessment is not done at all. Once farm-level assessments begin, claims for losses suffered in localised calamities will get paid," an official said.

Moreover, with insurance companies settling claims of farmers on the basis of yield data, which is often delayed, the government is planning to use smartphones to capture crop cutting data to reduce the time taken to finalise yield data, sources said.

After acquiring their land, MIDC to advise farmers on investment options

Consultant McKinsey roped in to recommend various investment models to suit farmers across state.



A farmer in his paddy field. (Source: Express photo by Kameswar Rao)

Besides monetary compensation and a portion of developed land, the Maharashtra Industrial Development Corporation (MIDC) now plans to offer farmers from whom it acquires land for industrial purposes an additional benefit-advice on how to invest the money and land for a sustainable income.

MIDC has roped in consulting firm McKinsey to recommend various investment models to suit farmers in different districts across Maharashtra. "When those who play in thousands suddenly get crores, they don't know how to manage their money. They end up spending on luxury goods and the money dries up in a few years," said an MIDC official, adding that McKinsey is studying the current situation around various industrial estates that MIDC owns, and will suggest separate investment options to suit different geographies.

MIDC acquires land under the MIDC Act, 1961, which gives it flexibility to buy land through bilateral negotiations. The corporation pays farmers three to four times the price of land as monetary compensation as well as 15 per cent of the developed land. "Recently, we paid Rs 1.5 crore per hectare for land acquisition in Talegaon. Some farmers end up getting Rs 2-3 crore as compensation," the MIDC official said.

Among various options that McKinsey is looking at, it is also considering a model where farmers pool in the developed land they get as compensation and use a portion of it for commercial purposes to have a sustained revenue. Bhushan Gagrani, Chief Executive Officer, MIDC, said, "If farmers pool in land parcels, it becomes a sizeable chunk and there is scope for planned development. Currently, they either sell or haphazardly develop their individual plots. We will have the report ready by the end of the financial year."

MIDC had several rounds of discussions with farmers, village heads, NGOs and local politicians to understand their requirements. "We don't have the mandate or machinery to give such advice directly to the land owners, but we have suggested to villagers that we would give them a detailed study of various models that they can choose from. The implementation would have to be at their level," Gagrani said.

Switch to a sattvik diet for better fitness and energy levels

In its 13th year, the Sattvik Food Fest in Ahmedabad is a primer on slow food and grains such as millet, sorghum and ragi.



Sattvik Food Festival is an effort to bring the goodness of a typical adivasi diet – devoid of processed food and rich in whole grains – to the calorie-crunching urban settlers. (In picture: an offering at the Sikkim stall, Source: SRISTI)

It is not a fad. There is not a drop of green juice in sight, and we are not even talking quiona salads here. A sattvik diet is what most of us grew up on — before we turned into calorie-crunching gym rats.

Like well-known nutritionist Rujuta Diwekar describes it on Twitter, "Sattvik food is simple, sensible and seasonal."

Ragi has been cooked in most Indian homes in some form or the other, as have other whole grains such as sorghum and millet. Seasonal fruits and vegetables has always been preferred over the imported variety. Samreedhi Goel, a Mumbai-based nutritionist and fitness expert, says, "Sattvik means pure, and the diet is, hence, filled with unprocessed, unadulterated and unrefined food. It is also a lacto-vegetarian diet — which ensures that none of the tastes (salty, sugary, pungent, bitter, spicy and astringent) are overemphasized — and improves energy levels."

Ramesh Patel, secretary of Sristi — the organization that hosts the festival every year — says, "Indian adivasis are healthy because their diet is sattvik. It has none of the processed and refined foods that people eat in the cities —

and it has been our mission to popularize grains and foods that they eat, including millets, jowar, ragi, and those whose fibre content is high."

"Those who attend the festival shouldn't expect to eat khichu, bhajiyas and dhoklas here," says Patel, referring to some popular Gujarati snacks. Instead, expect a menu that will include the known, and the completely unknown — from Bajra rotis to aloe vera flower stir fry. To finish up, there's cactus ice-cream too.

The Sattvik Food Festival is an attempt to reintroduce a food movement, which is not dependent on rice, wheat and refined flour for a staple diet. It is a 3-day event being held at the IIM campus from January 9 – January 11. A turnout of 75,000 foodies is expected at the festival, which will include 84 stalls that will showcase over 400 different dishes from across the country.

BusinessLine

Good demand at Kochi tea auctions



KOCHI, JAN 10:

Amidst low arrivals in all categories, Kochi auctions witnessed a better demand with active blenders' participation on good liquoring varieties.

In sale no 2, the quantity on offer was 9,49,000 kg in CTC dust, which was low compared to last week. The market for high-priced teas witnessed some resistance and declined when the sale opened. Later, it became steady and sometimes appreciated in value when the sale progressed.

Medium and plainer varieties were firm to dearer by ₹ 3 to ₹ 5 and sometimes more. There was active participation from upcountry buyers, the auctioneers Forbes, Ewart & Figgis said

With a good demand, the quantity on offer in orthodox grades was 13,500 kg. The market for primary grades remained steady.

In Cochin CTC dust quotation, good grades fetched ₹ 105-162, medium quoted ₹ 90-130 and plain stood at ₹ 77-94.

In leaf varieties, the quantity on offer in orthodox was 134,000 kg. The market for select best Nilgiri brokens, whole leaf and Fannings was firm to dearer.

However, the demand was better in CTC with only 48,000 kg was on offer.

All varieties were dearer by $\stackrel{?}{\underset{?}{?}}$ 2 to $\stackrel{?}{\underset{?}{?}}$ 4 and sometimes more.

In dust category, Pasuparai SFD quoted the best prices of ₹ 164 followed by Monica SFD at ₹ 162. In leaf grades, Chamraj OP-Delight Green tea fetched the best prices of ₹ 420 followed by P's Woodlands Hyson Green tea at ₹ 301.

(This article was published on January 10, 2016)

Modi to be chief guest at sustainable agriculture meet in Gangtok



Union Agriculture Minister Radha Mohan Singh

The conference to be held on January 17-18 will take lead on organic farming

NEW DELHI, JANUARY 9:

Prime Minister Narendra Modi will be the chief guest at the National Conference on Sustainable Agriculture and Farmers' Welfare being held in Gangtok on January 17-18, the Agriculture Ministry said in a statement. The conference is being held in Sikkim, which has taken the lead on organic farming, Agriculture Minister Radha Mohan Singh, said, adding that the conference will be attended by State government representatives, scientists, academics, bankers, experts and practitioners.

Jitendra Singh, Minister for Development of North East (Independent charge), said the greenfield airport at Pakyong near Gangtok is expected to be complete and become functional by 2017.

He said there are also plans to connect Sikkim with the country's rail network, which would be the third North-Eastern State after Meghalaya and Arunachal Pradesh to be brought on the rail map of India.

Singh also referred to the plan for constructing alternative road highway to Gangtok in Sikkim via West Bengal and two ropeways that will serve the purpose of both tourism as well as transport.

(This article was published on January 9, 2016)

Weak demand pounds pulses



January 8, 2016:

Sluggish trend continued in pulses and pulse seeds on weak demand and buying support from the millers. Besides, government's move to abolish mandi tax on pulse seeds coming from other states, has also added to bearish sentiment in pulse seeds and pulses. On Friday, masur (bold) in Indore mandis was quoted at Rs. 5,700, while

masur (Madhya Pradesh) ruled at Rs. 5,300. Masur dal also traded lower on weak demand with masur dal (medium) today being quoted at Rs. 6,150-Rs 6,250, while masur dal (bold) ruled at Rs. 6,350-Rs 6,450.

Similarly urad and masur traded lower on weak demand with urad (bold) today being quoted at Rs.10,500-Rs 10,700, while urad (medium) ruled at Rs. 9,500. Urad dal ruled steady with urad dal (bold) was quoted at Rs. 12,400-800, while urad (mongar) ruled at Rs. 12,000-Rs 12,500.

Moong also ruled flat on subdued demand with moong (bold) today being quoted at Rs. 7,700, while moong (medium) ruled at Rs. 7,000. Moong dal remained unchanged with moong dal (medium) today being quoted at Rs. 8,200-Rs 8,400, moong dal (bold) at Rs. 8,600-Rs 9,000, while moong mongar ruled at Rs. 8,400-Rs 8,800.

(This article was published on January 8, 2016)

Warm winter: Centre says no need to panic on wheat crop

Rabi acreage*	•		(in lakh hectare
Crop	Area sown in		EMERY > • •
	2015-16	2014-15	
Wheat	281.7	299.33	0/10/A
Pulses	134.36	134.81	
Coarse Cereals	57.4	52.28	
Oilseeds	74.46	77.41	是一种的
Rice	17.07	18.63	
Total	564.98	582.46	1000 A 1
Source: Ministry of Agricult	ure * as on lan 08.	2016	

Centre says it is watching the situation; rabi sowing dips to 565 lakh hectares

NEW DELHI, JANUARY 8:

The next two-three weeks are crucial for assessing the real impact of the dry and warm winter in North India on wheat production, especially as Rabi sowing of the cereal crop is still underway.

A warm winter and poor soil moisture levels, due to a weak monsoon, had impacted the rabi plantings this year.

"We are closely watching the situation," Agriculture Secretary Siraj Hussain said in reply to a question at a press conference here on Friday.

Stressing that there was "no need to spread panic", Hussain said while the temperature was higher than normal, "a team of scientists was closely observing wheat growing areas and giving suitable advice to farmers".

"So far there was no report to suggest any adverse impact," he said, adding that if the Pune weather department's rain forecast happens, "we should be fine."

Rabi sowing dips

Up to January 8, 2016, sowing/transplanting of Rabi crops crossed 564.98 lh, which is lower than 582.46 lh than last year, according to preliminary reports by the States given to the Agriculture Ministry.

Wheat sowing, which begins in October, has been lagging. As on January 8, wheat was sown on 281.7 lakh hectare (lh) against 299.33 lh last year. Sowing of oilseeds, too, was lower at 74.46 lh (77.41 lh) and rice was sown in 17.07 lh (18.63 lh).

Coarse cereals and pulses have been sown on 57.40 lh (52.28 lh) and 134.36 lh (134.81lh), respectively. According to some reports, wheat production is likely to fall below 90 million tonnes (mt) for the second year in a row in 2015-16 due to an unusually dry and warm winter.

Wheat output down

In 2014-15, India, the world's second-largest wheat producer, saw output decline to 88.95 mt due to poor monsoon and unseasonal rains in February-March, against a record 95.85 mt in 2013-14.

High temperatures are said to have an impact in tillering or maturing of wheat crop that could affect yield.

This year, key wheat-growing states, such as Uttar Pradesh, Madhya Pradesh and Punjab have reported over 60 per cent rainfall deficit.

However, according to private weather forecasting firm, Skymet, fresh Western disturbance approaching Jammu and Kashmir could have a possible positive effect on weather in North India's plains in the coming days.

On Friday, due to cloudy and foggy weather, day temperature dipped in parts of the National Capital Region and Punjab and would follow suit for the next two to three days, Skymet said, adding that light rain was likely in Delhi, Haryana and Punjab in the next 24-48 hours.

PTI adds: Madhya Pradesh's wheat produce for the current rabi season is expected to dip by 13 per cent to about 160 lakh tonnes. "Wheat has been sown under 50 lakh hectares in the ongoing Rabi season so far, which is about 15 per cent less than what was sown during the period last year. With maximum temperature remaining above normal, wheat production may be hit," Farmers' Welfare and Agriculture Development Department Director Mohanlal Meena told PTI.

According to agriculture scientist Akhileshnandan Mishra, cold weather is required for better yield of wheat.

But the maximum temperature has been remaining above normal this season, which is not a good sign for the crop.

He said seeing the weather pattern this year, many farmers have opted to sow gram (chana) crop, which has also resulted in a drop in acreage under wheat crop.

Last year too, Rabi wheat production was hit due to unfavourable weather conditions.

Last time around, wheat was sown under 59 lakh hectares and the staple production was around 184 lakh tonnes.

Crop insurance

Meanwhile, to help farmers tide over losses owing to volatile weather

conditions and climate change challenges, Agriculture Minister Radha Mohan Singh said a new crop insurance scheme would be announced in 2016-17.

"The premium amount will be fixed by the Union Cabinet after discussion," he added.

(This article was published on January 8, 2016)

International Paper strengthens farm forestry initiative

55,000 farmers to be given smart cards to enable direct transfer of funds

HYDERABAD, JAN 8:

International Paper APPM Ltd (IP-APPM) has launched Rythukosam, a farmer connect programme under the social forestry initiative, at Kadiam in East Godavari district of Andhra Pradesh.

The farm forestry initiative of the paper company has been designed to serve as a sustainable initiative supporting small and marginal farmers of barren and non-fertile land, apart from proving to be a catalyst in battling deforestation.

Towards this initiative, Rythukosam Smart Card and a portal have been launched to enable direct transfer of the monetary benefits of the farm forestry harvest to the farmers' bank account. The smart card is a voluntary scheme and is available to farmers who follow the best practices of pulpwood cultivation promoted by IPAPPM.

The portal is mobile-friendly and arrangements have been made to provide access to the portal at its Clonal Propagation Centres as well. Rythukosam provides information on the techniques for growing high-yield Casuarina saplings without impacting the productivity of the soil. Inter-cropping with Casuarina saplings to increase the farmer's earnings based on several studies are also covered.

Rampraveen Swaminathan, Chairman and Managing Director, International Paper APPM Ltd & President – IP India, said, "Empowering farmers who partner us in farm forestry is a foundational part of our strategy. Through

this initiative we aim to acquaint farmers with technically proven scientific methods of farming, which will help improve productivity and their economic potential. We expect to gradually cover all the farmers involved in Casuarina and Subabul plantations in the coming days."

The company (earlier AP Paper Mills Ltd) had launched its Farm Forestry programme for Clonal plantations in 1980s. The programme has so far helped plant over 1.75 billion saplings in an area of over 2.52 lakh hectares. Around 55,000 small scale farmers having marginal, fallow and barren lands are covered under the company's programme.

(This article was published on January 8, 2016)

Business Standard

New crop insurance scheme to cover 50% of farmers

At present, around 23 per cent of total cropped area of 194 million hectares is under insurance



The Union government's ambitious crop insurance scheme for farmers will be named 'Bhartiya Krishi Bima Yojana' and will aim to cover about 50 per cent of farmers in the next two-three years.

At present, around 23 per cent of total cropped area of 194 million hectares is under insurance.

Officials said, according to the final draft of the Cabinet note on the scheme, banks have to play a big role in ensuring its success.

Banks, according to the Cabinet note prepared by the ministry of agriculture, have to mandatorily credit the claim received by insurance companies into famers' bank accounts within 14 days. That apart, banks have also to ensure that all farmers who have taken crop loans against notified crops are compulsorily insured. At the same time, those who have not taken crop loans, but want to avail the benefit of a crop insurance get the same. Banks have also to ensure that crop loans are disbursed to farmers according to the guidelines laid down and ensure that funds so allocated are properly used by farmers.

The average premium rate for farmers under the new scheme will be a maximum of 2.5 per cent of the sum insured - it can be even lower - while the Centre's subsidy would go up to 90 per cent the premium.

In the new scheme, assessment of farms for calamities such as hailstorm and unseasonal rains would be done to ensure that each individual farmer gets an insurance, even if the damage is highly localised.

That apart, in the scheme, claims have to be mandatorily settled within 30-45 days of damage assessment and pictures taken through smart-phones, mobiles and tabs of the crop cutting data would be considered as valid proof of loss.

"This would help in reducing the time for settlement of claims," the official said.

"I feel government should differentiate between insurance and compensation, and insurance should just not be a risk mitigating strategy, but should also give some incentive. Also, crop assessment has to be accurate, or else, those who don't deserve get all the claims," Ajay Jakhar, chairman of Bharat Krishak Samaj (Indian Farmers Forum) told Business Standard. He said, apart from accurate assessment, crop insurance should be linked to Aadhar to check duplicity.

Sudhir Panwar, president of Kisan Jagriti Manch and member of the Uttar Pradesh Planning Commission said that the unit of measurement of claim should be the individual farmer and not a village, as is the practice now, and claims regarding yield loss due to pest attack should also be included in the scheme.

"As of now, claim settlement in agriculture is less than that of health, which needs to be improved. However, too low a premium might act as a deterrent for companies to participate," Panwar said.

THE TIMES OF INDIA

Crop insurance scheme a boon for Raj farmers

Crops in the state at present are insured under weather-based insurance scheme (WIBS) and modified national agricultural insurance scheme (MNIS). The state has been rallying for revamping insurance policies linking it with production and output.

"It will be a remarkable step that Centre will implement the new scheme from April 1. We suggested them to introduced production guarantee scheme (PGS). I don't have complete details but it is expected to be around those lines," said agriculture minister Prabhu Lal Saini.

In MNIS, the private sector insurance companies provide crop insurance. But more often it comes with a lot of riders. Similarly, WBIS are based on fluctuations in weather and ignore the farm output and productivity completely. Under both arrangements farmers end up paying more while receiving less for their crop losses. For the kharif season, districts were granted the option to choose between WBIS and MNIS. At present, 21 districts are under WBIS and 12 are under MNIS

The new policy aims to keep the premium rate low compared to the existing insurance schemes. The agriculture ministry in it cabinet note proposes maximum premium upto 1.5% for wheat, 2% for oilseeds, 2.5% for paddy and 2-2.5% for other crops. Moreover, under the new policy state will not have to pay for crop loss from disaster management funds. Every year Rajasthan government seeks financial assistance to distribute it among affected farmers. "It will have dual effect. As crops would already be insured and farmers will receive claim in case of any abbreviation, government may not have to compensate them separately," added the minster.

Rabi crop wilts for want of low temps

ALLAHABAD: Difference between day and night temperature and absence

of cold weather and moisture has started affecting rabi crop of wheat, mustard and other pulses in the region. The agriculture officers claimed that wheat crop in Allahabad and Pratapgarh has started showing signs of damage and production could be severely hit.

The agriculture land in Allahabad is around 2.5 lakh hectare, of which wheat is grown on 2.3 lakh hectare while in remaining area pulses and mustard are grown. As per experts, the day temperature is hovering around 25 to 26 degree Celsius, which should be around 12 to 15 degrees in early January. The situation is equally worse in areas where irrigation facilities like canals are available and areas which depend on rain. Farmers have to draw water from nearby water sources. In Allahabad, worst affected areas are Koraon, Karchana, Manda, Khiri, Bara in trans-Yamuna. The farmers of trans-Ganga areas of Mauaima, Baharia, Soraon, Holagarh are equally affected. The wheat crop in the neighbouring Pratapgarh district is equally affected. The farmers are pinning hope on rabi crop after kharif crop failed due to hailstorm in 2015, followed by drought.

Farmer Prakash Singh said that leaves of wheat crop are turning pale due to lack of rain and foggy weather. The farmers have lost hope and those who have take loans for procuring seeds and fertiliser have started migrating to the city to work as labourers.

Munna Singh of village Sewan in Nawabganj said that famers will be severely affected if crops fail to get the optimum weather condition. District agriculture officer J P Dube said, "The threat of another drought looms large if the prevailing weather condition does not improve in next two weeks. The crop is affected due to high day temperature."

Till date, the damage is not being assessed as the administration wants to wait for another few days. "The crop wants bitter cold conditions and moisture which this winter lacks," added Dube. Meanwhile on Saturday, the difference between day and night temperature was over 12 degrees Celsius. Maximum temperature was recorded at 24.9 while the minimum stood at 12.7 degrees. The humidity was high at 92%.

On Friday, the maximum temperature was 25 degrees and minimum was 8 degrees.

Chronicle

UK researchers develop viruses to protect Muga silkworm

The caterpillars have been in decline over the last few years because they are eating infected leaves.



Researchers at the University of Leicester have developed that virus. (Photo: Pixabay)

London: Researchers at a university inBritain have developed viruses that could halt the decline of 'Muga' caterpillar in India which produces one of the finest silks in the world. Muga caterpillars, which produce a highly valuable silk, are dying from bacterial infections, in Assam.

Researchers at the University of Leicester claim that they have developed viruses that could protect the silkworms from disease and as a result could save the Muga silk industry. Muga silk is produced only in the North East India as the silkworms form their cocoons. The caterpillars have been in decline over the last few years because they are eating infected leaves.

Dr Mahananda Chutia, a visiting academic from Assam at the university who is employed by the Indian government, said: "As well as its silk trade, Assam is known for its tea and farmers often spray pesticides to protect the tea leaves - these sprays are thought to have reached the silkworms and have weakened them. "In our model system at Leicester, we have found that the

consumption of phages (viruses) by caterpillars is a very effective method of preventing bacterial diseases." Dr Chutia has tested his research on common white wax worms, as muga caterpillars cannot survive in the UK, the BBC reported.

He returns to Assam at the end of the month to test the viruses by spraying them on to the leaves the caterpillars eat. The university claims if the research works on Muga caterpillars, thousands of farmers in India would benefit.



Influence of extreme weather disasters on global crop production

In recent years, several extreme weather disasters have partially or completely damaged regional crop production. While detailed regional accounts of the effects of extreme weather disasters exist, the global scale effects of droughts, floods and extreme temperature on crop production are yet to be quantified. Here we estimate for the first time, to our knowledge, national cereal production losses across the globe resulting from reported extreme weather disasters during 1964–2007. We show that droughts and extreme heat significantly reduced national cereal production by 9-10%, whereas our analysis could not identify an effect from floods and extreme cold in the national data. Analysing the underlying processes, we find that production losses due to droughts were associated with a reduction in both harvested area and yields, whereas extreme heat mainly decreased cereal yields. Furthermore, the results highlight ~7% greater production damage from more recent droughts and 8–11% more damage in developed countries than in developing ones. Our findings may help to guide agricultural priorities in international disaster risk reduction and adaptation efforts.