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THE HINDU

New variety to be launched

A farmer-friendly variety of sugarcane, VCF-0517, which guarantees high yield, is set to be launched soon.

S.N. Swamy Gowda, sugarcane breeder, Zonal Agricultural Research Station, University of Agricultural Sciences-Bengaluru (UAS-B), said the new variety was on field trial in the Cauvery command area. The UAS-B had supplied the new variety to some farmers in Mandya for field tests and after finding good results, it was used in over 3,000 acres in the Cauvery command area.

Mr. Gowda said the new variety was drought-tolerant and requires less water and it would be introduced next year.

Govt. to present general, agri budgets on March 10

The Andhra Pradesh government will present its general budget for 2016-17 as well as its agriculture budget on the same day, on March 10.

This is in variation with the normal practice of last two years of presenting the general budget exclusively first and then the agriculture budget, the next day or later.

It is customary to give one day break for the legislature after presenting the budget. This time, second Saturday and Sunday follow after the customary holiday on Friday after the budget presentation on March 10.

The government decided to present the agriculture budget too on Thursday so that legislators could study both the budgets thoroughly for three days before participating in the budget discussion subsequently, sources said.

Moreover, the agriculture budget is not strictly a separate one but more of a strategy supported with the budget figures and integration of primary sector.

Hence presenting both the budgets on the same day would save time, the sources added.

This is in variation with the normal practice of last two years of presenting the general

budget first

Farmers rally tomorrow to catch the attention of PM, CM

The Bharatiya Krishik Samaj will organise a rally by farmers from all over the district to protest against the failure of both the Bharatiya Janata Party-led NDA government at the Centre and the Congress government in the State to bail out farmers from financial crisis, at the Sardar High School Ground here on Saturday.

Announcing this here on Thursday, samaj State president Siddangouda Modgi said that the protest was deliberately planned on Saturday in view of Prime Minister Narendra Modi's visit to address a farmers rally to create awareness on the Pradhan Mantri Fasal Bima Yojana in the afternoon.

The samaj rally will be organised in the morning to convey a message to the Prime Minister as well as Chief Minister Siddaramaiah that the farmers were reeling under financial duress due to repeated spells of drought and non-payment of sugarcane dues to all growers since 2013-14, besides the absence of scientific pricing mechanism for agricultural produce.

Mr. Modgi held both the Union and the State governments responsible for the suicides of more than 1,000 debt-ridden farmers in the State in the last one year. Together, the two governments have gifted "Atma Hatya Bhagya" to growers instead of taking concrete steps to save them and provide them relief from exploitation by traders and sugar mills.

The governments had also failed to find a solution to the Mahadayi water dispute and were instead indulging in a blame game only to suit their politics at the expense of farmers.

Both the Congress and the BJP were organising public meetings with an eye on votes and to strengthen their vote-base. The Centre was doling out

incentives to the industry and corporate sector but was not willing to address the plight of farmers in distress except serving lip-sympathy, he said.

Coconut growers want government intervention in market as prices sink

Meagre fund allocation is a major constraint for procurement centres, say farmers

Coconut growers in Tiruvarur district have called upon the State Government to procure the produce as the plummeting prices had adversely impacted on their economy.

Raising the issue at the farmers grievances day meet here on Thursday, coconut growers led by Thambusamy of Kudavasal pointed out that the purchase price of coconut had registered a steady fall over the past few months and growers were not getting remunerative price. The State government must intervene and procure all the coconut from the growers to ensure that farmers did not suffer due to market conditions.

Mr. Thambusamy wanted the district administration to intervene and get the arrears pending to cane growers who had supplied the produce to the Thiru Aarooran Sugar Mills in the district. Another farmer Sundaramoorthy alleged that with the Tamil Nadu Civil Supplies Corporation allotting meagre funds to the direct procurement centres in several areas of the district, the centres were not in a position to procure all paddy brought by farmers because of which farmers were suffering. District Farmers' Welfare Sangam president Sethuraman wanted the State government to waive all agriculture loans availed by farmers since 2012-13 and demanded that the irrigation and drainage channels be cleared to ensure free flow of water till the tail end areas of the district.

Balakumaran, a farmer from Peralam wanted the district administration to ensure that all those who had applied for getting mechanised agricultural equipment at subsidised prices got the required machineries. District Collector M. Mathivanan assured farmers that their requirements would be conveyed to the higher authorities.

‘Butterfly-friendly plants are on the wane’

Experts emphasise the need for protection of water bodies



V. M. Muthukumar, Vice-Chancellor, Bharathidasan University, releasing the abstracts of the seminar on 'International Conference on Biodiversity and Biotechnology' in Tiruchi on Thursday to K. Murugan, Vice-Chancellor, Tiruvalluvar University.— PHOTO: A. MURALITHARAN

Speakers at the inaugural of the three-day international conference on “Biodiversity and Biotechnology – ICBB 2016” organised jointly by the Department of Biotechnology of Bharathidasan University and the Periyar Maniammai University here on Thursday, underlined the importance of application of biotechnology in conserving the natural resources. They emphasised the need for protection of water bodies, tanks, and surface channels for checking hazards caused by various vectors, particularly mosquitoes.

K. Murugan, Vice-Chancellor of Thiruvalluvar University, spoke on the role of butterflies in conserving biodiversity.

He said the butterfly-friendly plants were on the wane, disrupting the lifecycle of butterflies. He suggested the conference to discuss these issues and evolve a strategy for the conservation of natural resources.

V.M. Muthukumar, Vice-Chancellor of Bharathidasan University, in his inaugural address, explained the steps taken by the university in setting up a comprehensive eco-farm. The university had adopted a green energy plan.

Only through the intervention of biotechnology, biodiversity could be protected.

S. Sivaramakrishnan, Head of Department of Biotechnology, Bharathidasan University, said the objective of the conference was to highlight the applications of biotechnology in numerous fields with an eye on conservation of natural resources. Biotechnology found its applications in agriculture, medicine, environment, and social welfare and played a key role in preventing chronic diseases and for addressing the adverse impact on global warming and climatic changes.

Divided into seven sessions, the seminar would throw light on houseflies, pregnancy-induced hypertension, study on Samudram lake, conservation of mangrove, and sand dunes. The third-day of the conference would be held at the Periyar Maniammai University. A field visit would be organised when the delegates would be taken to bio-diversity-specific places in the central region.

S. Sridharan, Registrar of Periyar Maniammai University, spoke on the objective of the conference.

R. Babu, scientist from Zoological Survey of India, said that Western Ghats in Tamil Nadu was rich in biodiversity species. A national-level study on dragon flies and damsel flies across the country testified to the rich strength of various species. While 129 species of dragon flies were identified in Maharashtra, 135 species were found in Tamil Nadu. These flies played a key role in eradicating mosquitoes. “The tanks should be conserved, for breeding the dragon flies,” he said.

T. Parimelazhagan, faculty from the Bharathiar University, explained the efficacy of certain weeds found on paddy fields, which is used as a dish in Kerala. He explained the healing property of the organic species.

Earlier, Dr. Muthukumar released a book on the “extracts of papers” and the first copy was received by Dr. Murugan.

Crops on 87,301 hectares destroyed in Yadgir

The three-member Central study team on Thursday visited the drought-hit areas of the district to assess the crop loss suffered by farmers. The team, headed by Dinesh Kumar, Joint Secretary, Agriculture and Cooperation Department, entered into many fields and held discussions with the farmers, at Gogi, Rastapur and Hattigudur villages in Shahapur taluk and Naganur, Malagatti and Devargonal villages in Surpur taluk.

Deputy Commissioner Manoj Jain and Joint Director, Agriculture Department, Chetana Patil, who accompanied the team, explained to Mr. Dinesh Kumar the extent of crop loss.

Mr. Jain said that crops on 87,301 hectares had been destroyed. He further said that a proposal has already been submitted to the State government to release Rs. 66 crore as compensation. “As many as 54 farmers have committed suicide in the district and compensation of Rs. 5 lakh has been distributed to 31 families... nine cases were rejected for various reasons and compensation for the rest families would be released shortly,” Mr. Jain added.

During the visit, most farmers urged the officials to release compensation to get some respite from the loans taken from the banks.

Responding to the farmers, Mr. Dinesh Kumar said that they would collect reports from the State government officials and submit a consolidated report to the Union Government for further action. Vikash Suralkar, Chief Executive Officer of the Yadgir zilla panchayat, was also present.

Drought-hit farmers pour out their woes to Central team

They want govt. to start works under MGNREGA to help them tide over crisis

The two-day visit by the Central study team to assess the drought situation in the district has made the members of the team realise the magnitude of the damage incurred by farmers here.

On Thursday, the Central study team visited a few villages in Devarahipparagi and inspected the Almatti reservoir. K. K. Mishra, Deputy Secretary to the Energy Department, who is heading the team, said that he would submit a final report on the drought situation to the Union government within a week after holding talks with the district administration and the State government.



The Central study team visited a few villages in Devarahipparagi and inspected the Almatti reservoir in Vijayapura district on Thursday.—
PHOTO by: Special Arrangement

“We have met the farmers and checked the ground reality ... the situation is indeed grim. All the details would be compiled in the report,” Mr. Mishra told press persons after meeting the farmers.

“The Kharif had already ditched us ... we were hoping to recover some loss in the Rabi season ... but it has rubbed salt into our wounds,” a farmer from Kalaburgi village of Basavanabagewadi taluk informed the team.

Pouring out his woes to the Central team, another farmer said, “Leave alone food for us and our families, we are finding it difficult to even procure fodder for our cattle.”

The farmer said that their main crop — jowar and tur — have withered away owing to scanty rains. Small and marginal farmers informed the team that they want the government to immediately start works under MGNREGA to help them make ends meet during the drought season.

District in-charge Minister, M.B. Patil, who was accompanying the Central study team, asked the farmers not to worry as the district administration had already assessed the damage and crop loss. “The government is with the

farmers. We are trying to get as much funds as possible to provide compensation to the farmers,” he said.

Mr. Patil said that a few farmers were of the assumption that they may not get suitable compensation as the team has visited them at the end of the harvest season.

“I assure you (farmers) that you will not be deprived of the compensation”, he said.

Deputy Commissioner D. Randeep and officials of the agriculture and revenue departments were present.

Agriculture task force constituted

: The Kunnamangalam grama panchayat has formed an agricultural task force comprising 25 members to address the labour shortage in paddy farming and harvesting. Agriculture officer A.K. Sidharthan inaugurated the initiative. According to panchayat authorities, the service of the task force will be available to the villagers on completion of the task force members’ 11-day training programme.

Form marketing societies, farmers told



A participant explaining his grievance at the farmers’ grievance day meeting in Thoothukudi on Thursday.— Photo: N. Rajesh

Farmers have been asked to form marketing societies to reap benefits from sale of farm produce at the grievance redressal meeting presided over by Collector M. Ravikumar here on Thursday. He said formation of such

societies would not only integrate farmers, but would also avoid middlemen in marketing. Such a society was functioning successfully in Kovilpatti and more such societies were expected to come up in Pudur and Vilathikulam.

Recalling the flood situation, the Collector said compensation of Rs.9,524 for damage caused to agriculture crops and Rs. 6,911 for horticulture crops had been provided to 60,981 farmers in the district. In the second phase, the government had sanctioned relief assistance of Rs. 4.18 crore to benefit 21,410 affected farmers. Agriculture crops on 3,316 hectares and horticulture crop on 2,786 ha were damaged in various parts of the district.

Besides, the families of four persons, who lost their lives in the floods in November, were given Rs.4 lakh each. Besides, Rs.4.14 lakh was given for loss of 131 cattle, Rs.1.18 crore for 2,682 damaged huts, Rs.11.26 crore to 22,520 households affected by the floods. On the whole, flood relief to the tune of Rs. 31.61 crore had been given to the victims, he said.

Meanwhile, S. Nallaiah, a farmer from Ettayapuram, said most of the authorities in cooperative credit societies had been making farmers seeking loans to run from pillar to post. Out of 152 primary agriculture cooperative credit societies, crop loans were given only through 78 based on farm lands and the rest provided jewel loans to the farmers. The Collector said necessary action would be taken against any official from cooperative societies hesitating to offer crop loans.

Rajendran, a farmer from Nazareth, sought the government to form a new Aavin unit in Thoothukudi district since dairy farmers in the district had been contributing much to milk production. K.P. Perumal of Thoothukudi wondered whether the visit of central team to assess damages caused by the floods in Thoothukudi was beneficial to the farmers. The central team visited a spot in Ettayapuram and left. Many affected farmers were left out in the enumeration to provide compensation.

The Collector replied that the team inspected four locations. Moreover, photographs of damaged crops were displayed on the Collectorate premises. District Revenue Officer S.Murugaiah, Joint Director of Agriculture P. Vanniarajan, Joint Registrar of Cooperatives Arockia Sukumar attended.

‘Waste management scheme being implemented in 532 villages’

A Solid Waste Management programme is being implemented in 532 panchayats in Tiruvannamalai district, District Collector A. Gnanasekaran said.

Speaking at a Mass Contact Programme (MCP) held at Chunnambumedu village in Vandvasi taluk on Wednesday, District Collector A. Gnanasekaran said that panchayat level Solid Waste Management (SWM) facilities were created in 86 panchayats in the district in the first phase.

Now, SWM facilities are being created in 532 village panchayats in the district in the second phase.

Rs.12,000 is being given to build toilet in the houses that don't have toilet with an aim to eradicate open defecation, he said.

Nearly 495 petitions were received from the public in the programme and 155 of them were accepted, and another 87 petitions were being considered at various levels while 253 petitions were rejected. Of the rejected petitions 121 were given seeking Social Security Pensions.

The Collector handed out different kinds of welfare assistances like house site pattas, old age pension, marriage assistance, compensation for natural death, girl child social security programme assistance, inter caste marriage assistance, ration cards and agricultural inputs etc. to 142 persons. Cumulative worth of the assistances is estimated to be Rs.8.63 lakh.

Earlier Mr. Gnanasekaran planted a sapling at Panchayat Union Primary School campus in the village. Special Deputy Collector, Social Security Schemes, V. Jothi and host of officials participated.

Mass Contact Programme held at Chunnambumedu village in Vandavasi taluk

‘New Technologies will play key role in food security’



Telangana University Vice-Chancellor C. Parthasarathi speaking at the seminar on biotechnology on the varsity campus in Nizamabad on Thursday.–Photo: K.V. RAMANA.

“The country’s population is expected to reach 150 crore mark by the year 2030 and it will be a key challenge to ensure food security to all,” said Telangana University Vice-Chancellor C. Parthasarathi.

In view of the massive increase in population and near saturation in food grain production in our country, he stated that new technologies would play a key role in ensuring food security for all. He was participating as the chief guest at the inaugural of the national seminar on “Omic Technologies For Better Food and Nutrition”, organised by the Department of Biotechnology in TU campus, here on Thursday.

Mr. Parthasarathi who is also the Secretary, Agriculture, Government of Telangana, explained that the climate change was posing a serious threat to the cultivation in the country by disrupting the seasons and this would have a cascading effect on the food grains production. Quoting eminent scientist M.S. Swaminathan, father of the green revolution in India, he said that the green revolution must be turned into ‘evergreen revolution.’

He added that Omic technologies and plant genome projects and other innovations would hopefully come to the rescue of the mankind from extreme weather conditions caused due to global warming and other climate change issues.

Emeritus Professor Subash Karampuri, who delivered the keynote address, said that providing food with nutritious value to the teeming millions would

be the biggest challenge in the years to come. As a part of the seminar, eminent scientist Prof. Ramaswamy Nunna was felicitated on the eve of his retirement from the Kakatiya University biotechnology department. TU Registrar Prof. R. Limbadri, Principal Prof. P. Kanakaiah, organising secretary Praveen Mamidala, Mahender Aileni, Prasanna Sheela and Zaveria Uzma and other scientists were present.

Agro machinery outlet opened

Minister for Agriculture K.P. Mohanan inaugurated an exhibition-cum-sale centre of Kerala Agro Machinery Corporation Ltd. (KAMCO) at the World Market Complex at Anayara on Thursday. KAMCO chairman Charupara Ravi was present. The centre will facilitate viewing of KAMCO products' functioning and their direct purchase. — Staff Reporter

4,500 agricultural connections in A.P. core capital to go

Power demand comes down from 15 MW to 2 MW a day

The demand for electricity from agriculture sector in the core capital of Andhra Pradesh has come down drastically to less than 2 MW a day from about 15 MW earlier due to an almost complete stoppage of farming.

It is a substantial saving of energy that can be used elsewhere but the drop in demand reflects the sordid state of affairs in agriculture in the area.

According to official sources, nearly 4,500 agricultural connections are going to be removed in the coming months in the purview of substations at Anantavaram, Mandadam and Rayapudi in Guntur district as agricultural fields are gradually paving the way for construction activity.

A majority of the pump-sets are with 5 HP-capacity and some are run on solar energy.

A senior official of AP-SPDCL told *The Hindu* that a negligible number of farmers are taking up agriculture in the area and they will also be eventually diversifying into other fields as the capital structures start coming up.

For the time being, power is being supplied in three phases while efforts are on to provide separate feeders for agriculture in a staggered manner.

Capital power

Meanwhile, the daily power requirement of temporary capital city was pegged at 6 MW (1 MW each for six blocks) and necessary steps for constructing an exclusive 130 KV substation are being taken.

The substation will be built by the APTransco and a formal request has been made for a suitable site in the area. Besides, the process of laying underground cables and replacing worn-out overhead wires is being set in motion.

The temporary capital will have Secretariat, Assembly, Raj Bhavan, High Court and residential quarters for MLCs and MLAs. Power will be supplied from Tadepalli and Tadikonda substations till the new facility comes up in the core capital. Due priority has been given to harnessing solar energy and the modalities of which are being worked out in tune with the objective of having green buildings in place.

Tobacco auctions begin on positive note

The e-auctioning of tobacco, the principal commercial crop in Prakasam district, began on an encouraging note in the auction platforms in the southern light soil(SLS) region on Thursday. As much as 10,000 kg of tobacco was traded on the inaugural day as traders lapped up 89 bales offered by farmers paying the highest price of Rs. 140 per kg and a low price of Rs. 135 per kg. Only two bales were rejected, said SLS Regional Manager G.Ratnasagar.

The initial market trend augured well for the growers as the auctions saw a quantum jump of Rs. 15 per kg as against only Rs. 125 per kg realised during the inaugural day trade last year.

“Taking into account the increase in cost of cultivation, the Tobacco Board should ensure an average price of Rs. 140 per kg till the end,” Virginia Tobacco Growers Welfare Association president Ch.Seshaiah said.

Going forward, bright grade tobacco should fetch a price of more than Rs. 160 per kg so that the farmers could recoup their losses suffered last year and continue to cultivate tobacco in future, said former Tobacco Board member M.Bangarababu.

FCV growers disappointed

Staff Reporter from Guntur adds: Flue Cured Virginia (FCV) tobacco growers would be left a tad disappointed as traders were not willing to raise the prices beyond Rs.140 per kg, the highest price quoted for the day.

As against the demand for the highest price of Rs.160 per kg, all that the traders were willing to offer was Rs.140 for the bright grades on the opening day. The traders however are sceptical about meeting the demands for higher prices in view of volatile global markets.

Trade sources said that though auctions began on a bright note, maintaining higher prices for low and medium grades would be a tall order.

Paddy procurement begins in Kuttanad



Paddy procurement for the ongoing harvest season has begun in Kuttanad. Supplyco has made arrangements to ensure smooth handling of the procurement process, according to officials.

About 60 loads of paddy have been procured in the past few days and the quantity is bound to go up in the coming days, paddy marketing officer A.V. Suresh Kumar told *The Hindu* on Thursday.

Though a sum of Rs.21.50 a kg is offered to the farmer as procurement price, only Rs.14.10 is given now. The procurement price has Central and State components and only the Central share is distributed now.

The remaining Rs.7.40, being the State share, will be distributed as soon as the amount is released by the government.

The procurement is done as per the registration made by farmers online. A permanent registration number is given to the registered farmer to facilitate online verification and quick disbursement of procurement price. The procured paddy is transported to mills.

The government has made contract arrangements with 40 mills for processing the paddy. The mills have to return rice to the extent of 68 per cent of the weight of the paddy after processing.

Over 200 machines are to be deployed for harvesting. The State government has 35 machines under its custody. Arrangements have been made to deploy adequate number of machines. The machines are brought from owners in the private sector in neighbouring States. The district administration has put a ceiling on the rates to be charged for the harvesting machine.

The yield has been apparently less this time owing to various factors. Climate change is considered a major cause for reduced yield. Untimely rain has hit harvest in the past.

The crop insurance comes to the help of farmers in case of such a calamity. Climate-based insurance scheme is applicable to paddy farming in Kuttanad and other areas.

Cultivate new sugarcane varieties, expert tells farmers

Bakshi Ram, Director of ICAR-Sugarcane Breeding Institute, stressed the need for varietal change in sugarcane to attain good yield and returns. Cane farmers in Uttar Pradesh, Haryana, Punjab, Bihar, and Madhya Pradesh had started using new varieties of cane and were yielding good results, he said.

Participating in the 20th meeting of Sugarcane Research and Development Workers of Southern Karnataka here on Thursday, Mr. Ram said the cane

variety introduced in 1962 continued to be used in Karnataka and there was a need to change the mindset of farmers.

He said that maintaining soil health was important to sustain sugarcane productivity and stated imbalanced use of fertilisers and lesser use of organic manure as some of the reasons behind poor soil health, besides the rampant use of urea.

T. Sheshadri, Director of Research, UAS-Bengaluru, in his address said that over 40 million farmers were dependent on sugarcane.

Farmers were satisfied with getting 105 tonnes of cane per acre, while there were breeds, which could get over 400 tonnes of yield. He said that the overuse of inorganic fertiliser would impact the quality of cane and emphasized the need to use green manure. Mr. Sheshadri said that farmers could get high yield if they adopt genetically modified seeds and mechanisation.

T.B. Khandagave, Director, SNSL, Belagavi, spoke on the occasion.

A.C. Diwakar, director of M. Visvesvaraya Sugarcane Research Institute, was present.

Identity cards issued to onion farmers

What could be termed as a win-win situation for both farmers and consumers, the Marketing Department has issued identity cards to onion farmers in Narayankhed constituency.

According to Santosh Kumar, Assistant Director, Marketing Department, ID cards were issued to as many as 105 onion farmers in five mandals – Naryanakhed, Kangti, Kalher, Manoor and Peddasankarampet – as per the promise made by Irrigation Minister T. Harish Rao. Now, farmers can sell onion at Rythu Bazaars in the city at a cost of Rs. 12 per kilogramme so that they can benefit financially. While MLA M. Bhupal Reddy has extended cards to farmers at Peddashankarampet, officials have extended cards to farmers in other mandals.

This will continue for the next two days, Mr. Kumar said.

Vaccination for cattle

The 10th round of vaccination of cattle for foot and mouth disease will be carried out by the Animal Husbandry Department in the district from March 1 to 21. An estimated cattle population of 3.32 lakh will be vaccinated in the district during the drive, Collector K.S. Palanisamy said in a press release. The vaccination would be carried out by special teams from 6 a.m. to 9 a.m. and 3 p.m. to 5 p.m. every day during the 21-day period. He appealed to farmers to vaccinate their cattle against the disease without fail.

GRANTS GIVEN TO

MUSLIM SHG

Minister for Khadi and Village Industries T.P.Poonachi on Thursday distributed matching grants to the tune of Rs. 9.95 lakh to Muslim self-help groups given by the Department of Backward Class and Minorities Welfare. Mr. Poonachi said about 24,810 students from minorities had been extended Rs. 50.86 crore as educational assistance in the district so far. On Thursday, 199 members of Muslim women self-help groups were given Rs. 5,000 each. R. Manoharan, Chief Whip in the State Assembly, T. Rathinavel, MP, and K.S. Palanisamy, Collector, were present.

Open sesame!

The tiny black or white seeds can add loads of flavour and crunch to dishes besides lending them a dash of good health

Tahini maybe a recent addition to our tables but the seed from which it is made is one of the oldest in the world. Did you know that the tiny sesame seeds that we barely give a thought to are actually a high-value cash crop and a nutrient powerhouse?

Our *nallennai* is made from a cold pressing of sesame seeds. The exact translation from Tamil means ‘good oil’. Sesame is an oilseed with some of the highest oil content. It is also a great source of protein and dietary fibre besides being rich in vitamins and antioxidants like Vitamin B and oleic acid.

There are a number of ways that we can include sesame seeds in our diet. A favourite is the *ellu podi*. It is served with a flavoursome *poondu saadham* and is one of those combinations that you can never tire of and is a great lunchbox option as well. Don't forget to add a few drops of aromatic ghee before you dig in.



I always keep a small bottle of toasted white sesame seeds. It makes a great final topping for a carrot-cabbage salad or a green lettuce salad and has that unmistakable nuttiness. They are just as tasty when sprinkled on breads.

During breakfast at my friend Kavita's home, where food is influenced by both the Tam Brahm and Coorg kitchens, I feasted on fluffy *rava idlis* accompanied by a delicious *ellu pajji*. The unmistakable taste of the roasted sesame went well with the sweetness of grated coconut. Simple but it felt like a feast. I made the *ellu* chutney at home and it is now one of our favourites. One can also play around with the flavours depending on individual preferences. Once I added a bit of garlic and some dried bright red Hassanur chillies and made it thicker. The result was a very appealing yummy orange mix.

The black sesame is more often associated with Japanese food. Seafood with a sesame crust is plated beautifully to show off the contrast in colour between the pale fish and the dark crust.

Even desserts often feature this seed. Here the black ellu is hand pounded with jaggery and ghee to make the delicious *ellu urandai*. It's a great snackbox option as well.

In Beawar, Rajasthan, they make amazing *til patti* (*chikkis*), so thin that they're almost transparent. The sugar is still pale when the sesame and green pistachio flakes are added. It looks like speckled glass with bits of white and green sandwiched between circles of butter paper.

There is a satisfying crack when you break a piece off. It melts on the tongue leaving behind the crunch of the sesame and a slight aftertaste of cardamom just enough to refresh but not overpower.

Solar energy from silk cocoon

A UV-sensitive substance converts light into power

Indian scientists have discovered a UV—sensitive substance on silk cocoon membranes which converts light into electricity, a finding they say has opened up possibility of designing a bio—solar battery for medicine and also has potential applications in development of third generation solar cells.

Researchers at IIT—Kanpur, Delhi Technological University, Defense Institute of Physiology and Allied Sciences, Solid State Physics Laboratory (Defense Research and Development Organisation) have shown how a pupa in a silk cocoon senses light.

Flavonoids are found in most fruits and vegetables and the researchers demonstrated the role of the particular flavonoid (called quercetin) by connecting the cocoon (wild silkworm species of *Antheraea mylitta*, commonly called Tasar silk) with an electrode and shining light on it.

Mainak Das, Associate Professor, Biological Sciences and Bioengineering, Indian Institute of Technology, Kanpur, said, “When you use regular light, there was a slight shift in current and voltage and when you shine UV light there is a many—fold increase in current and voltage.”

The study is a continuation of an earlier work in which the team found that silk cocoon membrane has an inherent ability to sense the change in

temperature and humidity of the surrounding environment and convert it into electricity

“The molecule equips the silk cocoon as well as the pupae with the ability to convert light to electricity and especially to UV light. So while we as humans are looking for sustainable UV solar cell material, to supplement the already existing inorganic UV absorbing materials like strontium titanate, here is a modest biomimetic inspiration that could be drawn from the myriad world of silkworm,” the study notes.

According to Alok Bajpai, a psychiatrist at IIT—Kanpur, and one of the authors of the study, by tapping into the properties of silk cocoon, a bio solar battery could be designed for therapy of anxiety, chronic headache etc.

“Low cost silk mesh or silk cocoon based devices, if they retain the property of converting moisture, light and salt to electricity on surfaces like human skin, will create a revolutionary step in treatment of illnesses like chronic headache, generalized anxiety, erectile dysfunction and the like.

“If silk—based mesh is able to utilize the moisture and salt from the human skin and convert it to a micro current it can serve as a personalized biofeedback mechanism and relaxation device and an alternative to transcranial direct current devices that are being tested to ameliorate depression and anxiety. These would be essentially low cost due to abundance of silk,” Bajpai concluded. IANS



Production of oilseeds down by 40% in Madhya Pradesh

The main oilseeds, soybean and mustard, saw the worst decline at 5.92 lakh MT in 2013-14 from the high of 9.95 lakh MT in 2012-13.

The Madhya Pradesh government said on Thursday that it continued to ace other states in the agriculture sector, but admitted that the production of main oilseeds had declined by an alarming 40.5 per cent.

In the economic survey 2015-16 tabled in the Assembly, the government said the agricultural growth rate had come down to 18.83 per cent in 2014-

15 from the peak of 22.41 per cent, but it was still the highest in the country. In 2004-05, the growth rate was 3.13 per cent.

The state, which has won four consecutive central awards in food grain production, also admitted that though the acreage for wheat, rice and maize increased by 4.22 per cent, the production was substantially less by 10.03 per cent. Maize production fell by 37.45 per cent in 2013-14 over 2012-13.

The main oilseeds, soybean and mustard, saw the worst decline at 5.92 lakh MT in 2013-14 from the high of 9.95 lakh MT in 2012-13. Soybean production, in which MP has a lion's share, was less by 43.91 per cent.

Interestingly, the production of eggs and meat increased substantially in the period when CM Shivraj Singh Chouhan turned down a proposal to include eggs in anganwadi meals and the BJP took its campaign against beef to a new high. The survey report does not provide break-up of meat production, but it reached 59,000 MT in 2014-15, over 48,000 MT the previous year.

Growth 10%, agri growth 6%: Bihar economic survey

These figures were presented in the Economic Survey 2015-16, tabled in the Bihar Assembly on the first day of the Budget Session Thursday.

Bihar recorded steady growth in the last decade, with its Gross State Domestic Product growing 10.52 per cent annually on current prices between 2005-06 and 2014-15. However, with the slowing down of the Indian economy, annual growth in the last three years slumped to 9.89 per cent.

These figures were presented in the Economic Survey 2015-16, tabled in the Bihar Assembly on the first day of the Budget Session Thursday. Chief Minister Nitish Kumar started presenting the economic survey after coming to power in 2005.

State Finance Minister Abdul Bari Siddiqui told reporters later that the high growth rate was due to several sectors recording more than 15 per cent growth. "Manufacturing registered 19.31 per cent growth, construction sector grew at 16.58 per cent annually and banking and insurance sector at 17.7 per cent. However, agriculture, the mainstay of the economy, grew at 6.02 per cent," said Siddiqui, quoting the report.

“Despite a high growth phase, Bihar ranks at the lowest rung of the per capita table. In 2012-13, the per capita income of Bihar was 37 per cent of the all-India average, in 2014-15, it went up to 40.6 per cent,” the survey says.

According to the report, Bihar recorded Rs 74,750 crore loans in 2014-15 as compared to Rs 47,285 cr in 2010-11. The total length of national highways grew from 3,410 km in 2001 to 4,595 km in 2015. The total length of state highways is 4,253 km.

hindustantimes

India, Cambridge sign MoU on crop science



The agreement inked on Wednesday seeks to establish a joint UK-India crop science programme. (AP File Photo)

Tackling food shortage, increasing crop yield and improving disease and drought resistance are key areas in an MoU signed by India’s department of biotechnology and a consortium led by the University of Cambridge.

The agreement inked on Wednesday seeks to establish a joint UK-India crop science programme. It is also aimed at enhancing collaborative research, promoting knowledge exchange, and supporting capacity building to develop resilience in food security, a university statement said.

The agreement was signed by Cambridge vice-chancellor Leszek Borysiewicz, K VijayRaghavan of India's science and technology ministry, and Research Councils UK India director Nafees Meah on behalf of the Biotechnology and Biological Sciences Research Council (BBSRC).

Borysiewicz said: "This collaboration builds on the close links already established between leading researchers in the UK and India and is another great example of both countries' commitment to growing our partnerships in translational and applied research.

"This collaboration will create opportunities for leading experts in the UK and India to come together to tackle global challenges in the areas of food security, crop science and biotechnology."

The agreement foresees joint projects on the fundamental science underpinning yield enhancement, disease resistance and drought resistance; research into crop re-breeding; and the translation of fundamental research into sustainable agriculture practice.

It also contemplates the establishment of a joint Indo-UK Plant Science Centre in India, the statement added.

THE HINDU **BusinessLine**

Global black tea output dips 4.42%

Global black tea production in calendar 2015 declined from last year levels due to adverse weather in most producing countries.

"Our compilation shows that global black tea production dropped to 2,089.89 million kg (mkg) in 2015 from 2,186.63 mkg", Rajesh Gupta, compiler of *Global Tea Digest 2015*, told *BusinessLine*.

Led by Kenya and India, global black tea production in 2015 declined by 96.74 mkg or 4.42 per cent. Kenya accounted for the biggest loss of 45.90 mkg when its production fell to 399.20 mkg.

India recorded the second largest loss in production at 16.21 mkg with the output dropping to 1191.10 mkg. Uganda lost 13.75 mkg to reach 51.62 mkg, while Sri Lanka lost 10.54 mkg to 326.07 mkg, Malawi 6.46 mkg to reach 39.41 and Tanzania 4.27 mkg to touch 20.97 mkg.



While North India lost a marginal 1.57 mkg to produce 963.63 mkg, South India lost 14.64 mkg to produce 227.47 mkg.

Higher arrivals cool mustard oil

Sluggish trend in mustard oil and seeds continued with arrivals outstripping demand. In Indore mandis, mustard oil was at ₹708, while it ruled at ₹700 in Neemuch and ₹715 in Morena. In Rajasthan mandis mustard oil traded in Kota and Ganga Nagar quoted at ₹715 each. Similarly, in Jaipur mustard oil quoted at ₹725, while in Gujarat it quoted at ₹710. Mustard seeds went for ₹3,700-3,800 a quintal. Similarly, raida declined to ₹3,750. Plant deliveries of mustard seeds for Jaipur line were at ₹4,255-60 a quintal.

1.12 crore soil health cards distributed so far

A total of 1.12 crore soil health cards have been distributed so far and 2 crore cards are under printing and will be distributed before March 2016, the Agriculture Ministry said after a review meeting held recently with States and Union Territories.

Against the target of 104 lakh soil samples, States reported a collection of 81 lakh soil samples and tested 52 lakh samples, an official statement said on Wednesday.

At the meeting, Agriculture Minister Radha Mohan Singh urged States to build a network of soil testing laboratories. The guidelines of the scheme have been amended to set up soil testing labs as well as mini labs through Capital Investment Subsidy Scheme implemented through the Nabard. The guidelines have been modified to involve students of agriculture and other science colleges in soil health card programme, he added.

He said most of the States were under the process of floating tenders for purchase of equipment for these labs, and urged them to use funds released by the Centre to set up laboratories with the added facility for micronutrient testing.

However, the Minister, who reviewed the National Portal on Soil Health Card, found that some States, mainly from the North-East, had not yet come on board. These are Arunachal Pradesh, Assam, Bihar, Goa, Manipur, Meghalaya, Mizoram, Nagaland, Telangana and Tripura.

The target for 2015-16 is to collect 100 lakh soil samples and test these for issue of soil health cards.

Training units for rubber industry

The Indian Rubber Institute will set up training centres to educate and skill people in rubber and allied industries.

The centres will have the infrastructure facility for chemical testing of raw material, compound mixing, moulding and rubber testing.

Addressing a press conference on International Rubber Conference, PK Mohamed, Chief Convenor, Rubbercon 2015, said the facility will be opened in the eight IRI branches in India at an investment of about ₹8 crore.

“We are looking to tie-up with universities through which we will be able to educate, train and skill the young,” he added.

Mohamed said Rubbercon, to be held in Chennai from March 1 to 3, will focus on new technologies, with emphasis on latex technology.

CPCRI centenary celebrations on March 12

The Central Plantation Crop Research Institute (CPCRI) at Kasaragod in Kerala will launch its centenary celebrations on March 12.

A press release by CPCRI said here on Thursday that CPCRI was established as Central Coconut Research Station in 1916.

Radha Mohan Singh, Union Minister of Agriculture and Farmers' Welfare, will launch the centenary year celebrations by inaugurating the 'Kisan Mela' at Kasaragod on March 12.

As part of this, 100 coconut seedlings from the varieties released by CPCRI will be launched at CPCRI premises on that day.

Quoting P Chowdappa, CPCRI Director, the release said that this would become the centenary coconut park of the institute.

The release said that more than 2,000 farmers are expected to participate in the 'Kisan Mela'. There will be an exhibition on horticulture and scientist-farmer interface as part of the programme, it added.

Business Standard

Budget should drive the momentum of agricultural growth: Richard van der Merwe

It is extremely significant to augment post-harvest logistics to help store and save produce, consequently reducing imports



Richard van der Merwe, VC, MD and CEO of Bayer CropScience Ltd

During the past year, a lot of steps have been undertaken by the Central Government to improve India's socio-economic growth. We look forward to substantial reforms being announced to provide fillip to these initiatives and drive the development agenda further. This entails special focus on core sectors driving growth. A concerted effort to drive the momentum of agricultural growth and development is definitely the need of the hour. [Agriculture](#) which is the backbone of the country has suffered in the past two years.

One of the constraints faced by Indian agriculture is the need to increase farm productivity and improve yield which will improve farmers' incomes, especially for crops in demand. This requires attention towards development and proper usage of high-yielding, resistant varieties of seeds and crop protection measures.

It is extremely significant to augment [post-harvest logistics](#) to help store and save produce, consequently reducing imports. Increased spending and concrete steps to further solidify reform measures announced under National Mission for Sustainable Agriculture under Krishi Unnati Yojana, provision for a comprehensive crop insurance, enhanced irrigation facilities for alleviating farmers' issues and mitigating adverse impact of weather conditions on farm productivity would be a very welcome move from the Government.

India and UK institutions to collaborate for crop sciences research

The collaboration will create opportunities for leading experts in the UK and India to come together to tackle global challenges in the areas of food security, crop science and biotechnology

[Department of Biotechnology](#) (DBT), under the Ministry of Science and Technology, has signed a memorandum of understanding (MoU) with a consortium of top UK research institutions for establishment of a joint India-UK collaboration programme in crop science. The aim of the agreement is to enhance collaborative research, promote knowledge exchange, and support capacity building to develop resilience in food security.

The agreement was signed by Prof K [Vijay Raghavan](#)(Secretary, DBT), Sir

Leszek Borysiewicz (vice chancellor of University of Cambridge) and Nafees Meah of the Biotechnology and Biological Sciences Research Council (BBSRC) of UK. It was also signed by representatives from the National Institute for Agricultural Botany (NIAB), in Cambridge; the John Innes Centre, UK; the University of East Anglia, in Norwich, UK; and Rothamsted Research Institute UK.



Prof Leszek Borysiewicz said, “This collaboration builds on the close links already established between leading researchers in the UK and India and is another great example of both countries’ commitment to growing our partnerships in translational and applied research.”

Prof K Vijay Raghavan added, “The UK has been a long-standing partner with the Government of India in science and technology and the collaboration has grown from strength to strength. Our partners are the best in the UK and together we can be the best anywhere, working together to address a key global problem. This collaboration will create opportunities for leading experts in the UK and India to come together to tackle global challenges in the areas of food security, [crop science](#) and biotechnology.”

All parties agreed on the importance of crop science as an area of enormous potential for scientific collaboration, and of great importance for global [food security](#) in India and beyond.

The agreement foresees joint projects focusing on the fundamental science underpinning yield enhancement, disease resistance and drought resistance; research into crop re-breeding; and the translation of fundamental research

into sustainable agriculture practice. It also contemplates the establishment of a joint Indo-UK Plant Science Centre in India.



THE TIMES OF INDIA

Farmers go back to the roots in agriculture festival

Keonjhar: A two-day traditional seeds, foods and cultural festival held in Singpur village concluded on Wednesday. Hundreds of farmers from the tribal-dominated village under the Banspal block of Keonjhar as well as other areas of Keonjhar and Angul districts attended the festival, organized by Anchalika Bhuyan Pirha Sanskrutika Sangathan (ABPSS), a local Bhuyan tribal organization, about 50 km from here.

On Tuesday, the farmers staged a cultural rally carrying water pitchers and seeds on their heads and marched into the festival site. Hundreds of varieties of seeds, fruits, vegetables brought by farmers from different areas were displayed in the festival. "The objective of the festival is to protect traditional seeds and farming practices. This will be done by creating awareness among the farmers, by providing a platform for farmers from different regions to interact," said Bishnu Dehury, president of the ABPSS.

OPAL: Madhya Pradesh finance minister Jayant Malaiyya will present the budget for 2016-17 in assembly on Friday morning. This will be the third budget of ruling BJP's third term government in the state. With assembly elections scheduled for November-December 2018, the government is under no pressure to present a populist budget. Yet, in a BJP government the Simhastha Kumbh starting from the first month of the new fiscal year, could be given priority.

Finance minister Malaiyya would have to allocate some hefty funds to ready Ujjain for the expected five crore devotees who would visit the holy city for a dip in the Kshipra river from April 22 to May 21. Government has already estimated cost of hosting Singhasht at nothing less than Rs 5,000 crores out of which nearly Rs 2,800 crore of work has been allocated. Recently, Malaiyya paid Union finance minister Arun Jaitley a visit in New Delhi and asked for

Centre's contribution to Simhastha. But nothing encouraging in terms of funds evolved from the meeting.

So the financial impact of developing infrastructure, making arrangements, cultural, social, and specially publicity of the event - all will come from the state exchequer. It is to be seen if the finance minister splits the expenditure of Simhastha on various departments (PWD, energy, urban administration, water resources, religious trust) or hits it head-on with a special package for the kumbh. Defeat of Ratlam tribal reserved Lok Sabha seat has not gone down well with the ruling party. BJP won this constituency adjoining Gujarat for the first time in April 2014.

But 18 months later, the same seat defeated BJP with over 88,000 votes and went back to electing the Congress. There are eight assembly segments in Ratlam Lok Sabha constituency, seven of which presently belong to the BJP. One seat, Thandla, went to an independent. After the rout in Ratlam, the BJP is tensed that if the same pattern of voting is repeated in assembly polls 2018, then the party will be seven seats less. It is also a possibility that other tribal areas in the state might be as disillusioned as voters in Ratlam.

Budget 2016-17 could pay special attention to alit and tribal welfare. The state has 35 S/C reserved seats and 47 S/T reserved constituencies. No political party can win Madhya Pradesh without the support of these 82 crucial assembly seats. Last week, the state cabinet took a decision to celebrate the Ravidas Jayanti and a Shabari Kumbh. Finance minister Malaiyya's concentration could be focused on SC, ST welfare and minister Gyan Singh's department could see some heavy funding from the state exchequer.

No budget of the Shivraj Singh Chouhan government can ignore agriculture and water resources, the latter being finance minister Malaiyya's additional department. Nearly 70% of voting population in the state are dependent on the agricultural sector. Plus, chief minister Chouhan being from agrarian background, his focus both politically and personally cannot waver from this segment.

As NDA centre raised minimum support price for wheat to Rs 1525 per quintal, the state government need not pay a bonus to farmers anymore. But the money allocated for bonus will be utilised in some other capacity for farmers' welfare, the chief minister has reiterated many times. Water

resources department could be allocated one of the largest funds for increasing land under irrigation.

Farmers deep in debt, seek subsidies and help with insurance

MUMBAI: Indian government action to increase spending on irrigation and crop insurance is not enough to end a cycle of indebtedness that has led to thousands of farmer suicides, and a complete overhaul of credit and subsidies to farmers is needed, activists said.

Drought in many parts of the country has hit rice, cotton and other crops, and lower world commodity prices have added to the farmers' plight.

More than half India's farming households are in debt, owing banks and moneylenders hundreds of millions of rupees, despite numerous loan write-offs by successive governments.

Tens of thousands of farmers across the country have killed themselves over the past decade, several farmers' lobbying groups said.

Finance minister Arun Jaitley, who presents the Union Budget for fiscal 2016-17 on February 29, has to balance stimulating economic growth with aiding farmers and poorer sections of society.

Farmers' groups have been demanding better monsoon forecasts, bigger fertilizer subsidies and a state-funded insurance scheme for all crops, to help farmers improve yields and help prevent crop failures.

"The need of the hour is a focus on the dying farmer community," said activist Kishor Tiwari, who heads a task force set up to recommend action to tackle farmer suicides in Maharashtra, which accounted for more than half of all suicides among Indian farmers in 2014.

"Debt is a core issue, and it needs a long-term plan to resolve it," he said.

While inter-generational bonded labour in the farming community is no longer as common as before, the number of poor and landless workers who are in debt bondage is rising, particularly in agriculture, brick kilns and stone quarries, activists say.

Indian farmers seldom own the land they cultivate, and often take loans to buy seeds and fertilisers. Only about one tenth of India's 263 million cultivators take out crop insurance because of the high premiums.

Unpredictable weather and low crop yields have made farming unviable for many. Financial assistance provided by the government usually doesn't cover the losses, and some farmers have migrated to urban areas for low-paid jobs, even selling their blood to make ends meet.

Tiwari, in a plan submitted to the Maharashtra government, has recommended direct cash subsidies for farmers instead of the current indirect agriculture credit.

He also suggested the central and state governments help underwrite full crop insurance cover and promote the adoption of organic farming methods in drought-prone districts, to help restore soil quality and benefit from the higher price of organic produce, even though yields are lower.

A total of 5,650 farmer suicides were recorded in India in 2014, more than half of them in Maharashtra, according to the National Crime Records Bureau. The states of Madhya Pradesh, Telangana, Chattisgarh and Karnataka also had large numbers of farmer suicides.

The cabinet last month cleared a proposal for the country's first major crop-damage insurance scheme. The government has said it will reduce premiums to be paid by farmers, and ensure faster settlements.

Delays in estimating crop damage and paying claims are a big challenge, said Sunita Narain, director of non-profit Centre for Science and Environment in New Delhi.

The government must encourage the use of new technologies, including remote sensing and mobile-based image capturing systems to improve yield data and claims processing, she said.

"Insurance coverage has to be universal and payouts enough to cover losses," she wrote in a blog.

Farm output contributes about 15 percent to India's \$2 trillion economy, and farmers and rural communities are a large and powerful vote bank.

Politicians have often promised to waive farmers' loan repayments, but have not addressed the underlying reasons for their chronic indebtedness, Tiwari said.

"Loan waivers are not the solution; it is like a simple dressing for a cancer tumour. You need to excise the tumour and address the cause of the disease," he said.

PAU comes up with four crop varieties

dhiana: The Punjab Agricultural University (PAU) has come up with three kharif season varieties and one rabi season variety for general cultivation in Punjab. The varieties include PBN 346 of napier bajra, ML 2056 of mungbean, LD 949 of desi cotton and PC 6 of African sarson. The varieties were approved for general cultivation during the meet of State Variety Approval Committee, held under the chairmanship of Dr Gurdial Singh, director of Agriculture, Punjab.

According to Dr Balwinder Singh, director of Research, PAU; and Dr RS Sidhu, director of Extension Education, PAU; the salient features of all the varieties were discussed thoroughly before the release. PBN 346 is a forage napier bajra hybrid. It is a leafy variety, with long, smooth, non-hairy, and broad leaves. It sprouts earlier in spring, and remains in vegetative growth until the onset of winter. It yields 715 quintal of green fodder per acre.

ML 2056 is a kharif mungbean variety. Its plants are erect and medium statured (78cm). Pod formation is profuse and each pod contains 11-12 seeds. The average grain yield is 4.6 q/acre. It is fairly resistant to mungbean yellow mosaic virus, cercospora leaf spot, and bacterial leaf spot diseases. It matures in about 71 days. LD 949 is a high yielding and high ginning variety of desi cotton. Its average seed cotton yield is 9.92 quintals/acre. It possesses lint percentage of 40.1. Its fibres are short, coarse, and suitable as surgical cotton. This variety is moderately resistant to Fusarium wilt and bacterial blight. It is tolerant to whitefly and jassid.

PC 6 is an African mustard sarson variety. It gives 7.7 q/acre yield and has an oil content of 40.1%. It is a medium-statured variety with a determinate growth habit.

The letter sent from the cooperation department stated that the disbursement of crop loans during rabi 2015-16 is reportedly Rs 2328.06 crore, as against the target of Rs 4,500 crore, failing to reach the 52 percent target. Adequate rabi finance has been accorded priority as the kharif crop of 2015 was affected by a drought in the state, the letter added.

This performance comes to light at a time when the state faces allegations of a series of farmers' suicides. Both the ruling BJD and opposition parties like BJP in the state tried to score points each other and express their concern regarding farmers' issues by organizing separate public meetings in western Odisha.

Bhubaneswar: Ten of 30 districts in the state have failed to meet the average 52% target on disbursement of crop loans to farmers during rabi 2015-16. The districts that fell short are Angul, Balasore, Bhawanipatna, Balangir, Boudh, Keonjhar, Khurda, Koraput, Nayagarh and Sambalpur. This was revealed in an official communication by the government on Tuesday.

The letter addressed to Odisha state cooperative bank said, "District central cooperative banks (DCCBs) may be directed to accelerate the progress in rabi crop loan finance to meet the target set for rabi 2015-16." It added, "A one-month-period of the rabi season is left to achieve the target."

Mango crop likely to suffer if pre-summer rains get delayed

Visakhapatnam: Although flowering of mango trees has been on time, farmers in the district are a worried lot due to the delay in pre-summer showers.

For the flowers to bloom and turn into fruits, there must be rain, especially during February or early March, along with a fair combination of humidity.

However, this time, Ratha Saptami was celebrated before Shivaratri (the time it rains), which is on March 7 and the ryots are hoping that the temperatures would not rise beyond 35 degrees Celcius before that.

R Kami Naidu, a farmer from Chodavaram, said, "The rising temperatures combined with the fall in humidity levels is bothering us. The dew during this season and time of the year can cause huge amounts of damage to the crop. Hence, we are keeping our fingers crossed."

Spread over 1.2 lakh acres of land as part of mixed plantations, mango is one of the main summer crops. Senior officials of the horticulture department are worried that further delay in rains could affect the crop. "The weather conditions here are unpredictable. While temperatures are on the rise during the day time, a lot of dew falls during the nights just like in the month of January. This could pose a serious threat to the fruiting process as the flowers covered with dew could actually die," said a senior horticulture official in the district.

Former field scientist with the soil conservation department of the Government of India as well as a farmer by profession, BN Sarma said, "This could mean that there would be either late flowering or decrease in produce. The farmers will be at the receiving end as the crop lease holders would claim compensation from them despite the corresponding hike in prices."

Regarding the compensation paid by the ryots, Ch Raju, a farmer from Ramannapalem in Makkavaripalem mandal, explained, "This is an ancient practice that is being continued even after the implementation of land ceiling. Earlier, large land holders could afford to compensate for the losses as they had enough property to fall back on. Expecting such a reward from medium and small scale farmers is unfair."

THE ECONOMIC TIMES

States governments have distributed 1.12 crore soil health cards

Union Agriculture Minister Radha Mohan Singh reviewed Soil Health Card Scheme with Secretaries Agriculture/ Directors (Agriculture) of States.

NEW DELHI: State governments have so far distributed 1.12 crore soil health cards to farmers and are expected to provide another 2 crore by the end of next month.

Union Agriculture Minister Radha Mohan Singh on Tuesday reviewed Soil Health Card Scheme with Secretaries Agriculture/ Directors (Agriculture) of States. The government plans to distribute 14 crore soil health cards by 2017. In the current fiscal, Rs 100 crore has been allocated to states for making soil health cards and set up labs.

"By now the states have distributed 1.12 crore soil health cards and 2 crore cards are under printing, which will also be distributed before March, 2016," an official statement said. "Against the target of 104 lakh soil samples, the states have reported collection of 81 lakh soil samples and tested 52 lakh soil samples," it added.



In his opening remarks, Singh said the Soil Health Card (SHC) Scheme is an important scheme of the government that aims at promoting soil test based and balanced use of fertilisers to enable farmers realise higher yields at lower cost. It was observed that states like Nagaland, Sikkim, Gujarat, Bihar have done well in sample collection.

Natural rubber output falls 3 per cent in January, imports up 21 per cent

Natural rubber production fell by 3.4 per cent during the last month to 56,000 tonnes, while imports rose by 21 per cent to 35,174 tonnes.

NEW DELHI: Natural rubber production fell by 3.4 per cent during the last month to 56,000 tonnes, while imports rose by 21 per cent to 35,174 tonnes.

Production stood at 58,000 tonnes and imports at 29,141 tonnes in January, according to the Rubber Board data.



Natural rubber consumption declined to 82,000 tonnes in January 2016 from 83,850 tonnes in the same month last year.

In the first 10 months of the current financial year 2015-16, natural rubber production fell by nearly 13 per cent to 4,96,000 tonnes as against 5,68,000 tonnes in the corresponding period of the previous year.

Consumption also fell by 3 per cent to 8,21,910 tonnes in the April-January period of this fiscal from 8,48,535 tonnes in the year-ago period.

Imports also declined to 3,65,805 tonnes in the first 10 months of this fiscal from 3,80,175 tonnes in the corresponding period of the previous year.

Last month, the government allowed import through only two sea ports of Chennai and Nhava Sheva in order to curb inbound shipments.

"Import of natural rubber of all varieties/forms ... is allowed only through sea ports of Chennai and Nhava Sheva (Jawaharlal Nehru Port)," the Directorate General of Foreign Trade (DGFT) had said in a notification.

Domestic producers have been raising concerns over rising imports and fall in local prices.

Rail Budget 2016: Horticulture farmers highly disappointed



Horticulture farmers are highly disappointed as the railway budget failed to take note of their long standing demands.

PUNE: Horticulture farmers are highly disappointed as the railway budget failed to take note of their long standing demands.

"Despite bumper production of Nagpur oranges and Nagpur being connected to the rail network, orange farmers do not get access to this cheap and safe route of moving oranges to Delhi or Kolkata," said Amol Totey, president, All India Orange Growers' Association.

"It is the well connected traders or the carting agents, who have monopoly on whatever little space railway offers for horticulture goods. Small farmers or the now growing number of Farmer Producer Organisations hardly get space on trains," he said.

The grape farmers too have been demanding for rail transport for carrying grapes from the grape growing pockets of Nashik and Solapur in Maharashtra to the consuming centres like Kolkata and Delhi. "Railway never calls farmers to listen to their problems before formulating a budget. All the farmers will be greatly benefited if they get access to railway to send their produce to cities," said Sopan Kanchan, president, All India Grape Growers' Association.

Railways suspended the experimental Horticulture Train, which used to mainly carry the bananas from Jalgaon to Delhi, a few years ago as it was not profitable.

Budget 2016: Farmers deep in debt, seek subsidies, help with insurance



Drought in many parts of the country has hit rice, cotton and other crops, and lower world commodity prices have added to the farmers' plight.

MUMBAI: Government action to increase spending on irrigation and crop insurance is not enough to end a cycle of indebtedness that has led to thousands of farmer suicides, and a complete overhaul of credit and subsidies to farmers is needed, activists said.

Drought in many parts of the country has hit rice, cotton and other crops, and lower world commodity prices have added to the farmers' plight.

More than half India's farming households are in debt, owing banks and moneylenders hundreds of millions of rupees, despite numerous loan write-offs by successive governments.

Tens of thousands of farmers across the country have killed themselves over the past decade, several farmers' lobbying groups said.

Finance Minister Arun Jaitley, who presents the federal budget for fiscal 2016-17 on Feb. 29, has to balance stimulating economic growth with aiding farmers and poorer sections of society.

Farmers' groups have been demanding better monsoon forecasts, bigger fertiliser subsidies and a state-funded insurance scheme for all crops, to help farmers improve yields and help prevent crop failures.

"The need of the hour is a focus on the dying farmer community," said activist Kishor Tiwari, who heads a task force set up to recommend action to tackle farmer suicides in western Maharashtra state, which accounted for more than half of all suicides among Indian farmers in 2014.

"Debt is a core issue, and it needs a long-term plan to resolve it," he said.

While inter-generational bonded labour in the farming community is no longer as common as before, the number of poor and landless workers who are in debt bondage is rising, particularly in agriculture, brick kilns and stone quarries, activists say.

Indian farmers seldom own the land they cultivate, and often take loans to buy seeds and fertilisers. Only about one tenth of India's 263 million cultivators take out crop insurance because of the high premiums.

Unpredictable weather and low crop yields have made farming unviable for many. Financial assistance provided by the government usually doesn't cover the losses, and some farmers have migrated to urban areas for low-paid jobs, even selling their blood to make ends meet.

Tiwari, in a plan submitted to the Maharashtra government, has recommended direct cash subsidies for farmers instead of the current indirect agriculture credit.

He also suggested the central and state governments help underwrite full crop insurance cover and promote the adoption of organic farming methods in drought-prone districts, to help restore soil quality and benefit from the higher price of organic produce, even though yields are lower.

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The government must encourage the use of new technologies, including remote sensing and mobile-based image capturing systems to improve yield data and claims processing, she said.

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Farm output contributes about 15 percent to India's \$2 trillion economy, and farmers and rural communities are a large and powerful vote bank.

Politicians have often promised to waive farmers' loan repayments, but have not addressed the underlying reasons for their chronic indebtedness, Tiwari said.

"Loan waivers are not the solution; it is like a simple dressing for a cancer tumour. You need to excise the tumour and address the cause of the disease," he said.