#### DATE:23.01.2015



#### Blast disease looms over paddy harvest

Officials hope for normal yield in delta districts



concern over yield: A group of agriculture labourers feed the machine during harvest in Tiruchi on Thursday.— PHOTO: B. VELANKANNI RAJ Harvest of samba paddy has begun in canal irrigated areas of the district with farmers in some parts of the district worried over possible yield loss because of blast disease.

Samba paddy had been raised on about 85,000 acres of land in the canal irrigated delta areas of the district and in another 25,000 acres in the nondelta areas of the district, Agriculture Department sources said.

Of this, farmers in the delta areas had started harvesting the crop over the past few days.

According to initial reports, the yield appeared to be normal, sources in the

Agriculture Department said.

Harvesting of the samba crop was expected to go on till February with farmers too expecting a decent yield.

"We are expecting a normal yield. However, there will be drop in yield in paddy fields affected by the blast disease," said N. Veerasekaran, Coordinator, Ayyan Vaical Pasanatharar Sangam.

Incidence of blast disease had been reported from Manikandam, Andhanallur, Musiri, Thottiyam, and Manachanallur and to a certain extent in Lalgudi areas in the district. Farmers are apprehensive of a sharp drop in yield in fields affected by the disease.

"Yield will be badly affected in the disease-hit fields. The government should sanction compensation of Rs. 25,000 an acre to the affected farmers," said P. Ayyakannu, vice-president, Bharathiya Kisan Sangam, who along with other members of the organisation presented a representation to the District Collector on Thursday.

According to initial estimates, about 8,000 hectares were affected in the district because of the disease. An assessment would be taken up by the Agriculture Department in association with the Revenue and Tamil Nadu Agricultural University scientists, sources in the Agriculture Department said.

Mr.Veerasekaran said that the Agriculture Department should take effective steps to prevent recurrence of the disease in future by recommending appropriate steps to eradicate the fungus from the fields.

#### Farm ponds may help farmers weather summer



Thanks to the farm ponds scheme initiated last year by the State Government, dovetailing the Centre's Mahatma Gandhi National Rural Employment Guarantee Scheme, a total of 1,000 agricultural fields owned by small and medium-scale cultivators in Erode district are now endowed with water bodies that assure water availability during the hot months ahead.

After the Agriculture Department identified the beneficiary farmers, the Rural Development Department got into deploying hundreds of farm labourers to dig up the ponds under MNREGS.

With the District Collector as chairman and Joint Director of Agriculture the Project Director, the scheme holds promise to the farmers.

Farmers covered under the scheme are now in a position to sustain their agricultural through the hot summer months, Joint Director of Agriculture M. Selvaraj said.

This time around, farmers in the LBP (Lower Bhavani Project) ayacut are safe owing to copious monsoon rain. There is enough storage in the Bhavani Sagar Dam for six schedules of special wettings to raise dry crops. The ponds have been constructed at spots in the fields where the run off water from the rain accumulates. The long-term advantage is perennial recharge of acquifer, agriculture officials say. According to farmers, the ponds are also useful for meeting the drinking water requirement of cattle, and has opened up scope for fish farming.

#### Exploring renewable energy for agriculture, MSMEs

When it comes to power shortage, farmers are among the worst-hit. Yet, the agricultural sector has inched very little towards the use of renewable energy in Vellore, mainly due to lack of models and high initial investment, according to experts.

As per a survey, at least 37 per cent electricity connection goes for farming in Vellore taluk, but farmers are among the first to be affected when there is power cut for six to eight hours a day as water supply gets hit, R. Natarajan, director, Carbon Dioxide Research and Green Technology Centre, VIT University said.

"For agriculture, electricity is crucial mainly for running pumps to supply water for irrigation purposes. When power crisis looms large, turning to renewable energy such as solar and biomass will help," he said.

In the absence of any models to take renewable energy to agriculture, micro and small industries, experts have come together to evolve a mechanism to explore the opportunities. A project — Renewable Energy Harvesting and Effective Utilisation in Agriculture and Engineering Industry (Micro and Small Enterprises) 2015 — will look at coming up with models and studying scope and feasibility in this area in Vellore, R. Velmurugan, project coordinator said.

#### Seminar

A one-day seminar was organised on Thursday to kick-start a road map for the project. S. Nagarajan, general manager, Kramski Stamping and Moulding Pvt Ltd suggested creating an agriculture-engineering (micro and small enterprises) cluster for renewable energy. "Through this cluster approach, a common facility could be set up, skill development activities can be taken up and value added products of agricultural produce such as jaggery and rice can be taken up," he said.

Vellore district and Tamil Nadu face power shortage and renewable energy is a boon, he added.

G.V. Selvam, vice president of VIT University, said agriculture faced problems owing to labour and water shortage. "We have around 300 days of sun here but utilisation of solar energy is less when compared to foreign countries. One reason for less utilisation is that the initial investment is more," he pointed out.

He urged students and institutions to work on developing low-cost models so that people could adopt renewable energy. Professor Natarajan said farmers could generate power using solar energy and biomass, store the power and use whenever required in the fields.

#### Proposal to interlink three rivers to be made: Collector

Check-dams will be constructed on Vembar with funds from NABARD



A farmer making a point at a grievance day meet in Tuticorinon Thursday.— Photo: N. Rajesh

To offset the scarcity of water for drinking and agriculture for people at Vilathikulam and Pudur, a proposal would be sent to interlink three rivers – Vaipar, Vembar and Gundaru under the assistance of NABARD, Collector M. Ravikumar, who presided over a farmers' grievance redressal meeting here on Thursday, said.

Check-dams would be constructed at Vembar and Periyasamipuram with funds of NABARD on a priority scheme. The district experienced surplus amount of rainfall last year during which 763 mm of rain was recorded against the annual average of 662 mm.

The bountiful rains triggered a considerable yield of crops especially black gram and green gram. Unlike previous years, a maximum of 13,000 tonnes of urea was distributed in 2014 to farmers in the district. Previously, the average distribution of urea to farmers in the district annually was 2,400 tonnes. The district administration with the support of the Bharat Petroleum Corporation Limited would desilt 28 kanmois in Ottapidaram. Such activities would be done under self-sufficiency scheme of the government.

The Collector said the industry body in Tuticorin had been advised to execute such works in the backward areas of the district as part of corporate social responsibilities. Thirty more kanmois would also be desilted in the second phase.

Meanwhile, he said crop loan amounts would be credited directly into the bank accounts of 47, 862 eligible farmers on January 30.

P. Murugesan, general secretary, Southern Dry Land Farmers Association, said cotton yield was up considerably in Kovilpatti revenue division last year, but farmers were disappointed as the crop did not fetch them good price.

One quintal of cotton was marketed below Rs.3,000. The Collector appealed the farmer to approach regulated market being maintained by agriculture officials for a better price. District Revenue Officer, R. Muthu, Joint Director of Agriculture, N.K. Dhakshinamoorthy, Join Registrar of Cooperatives, Janakiraman and PWD officials attended.

#### Animal health crucial for 'one health': expert

Says research is imperative tocombat zoonotic diseases



Suresh S. Honnapagol, Commissioner, Department of Animal Husbandry and Dairying, Union Ministry of Agriculture, has said research was imperative to combat zoonotic diseases. He was inaugurating a three-day national symposium on 'New dimensions in veterinary medicine: technological advances, one health concept and animal welfare concerns' at the Kerala Veterinary and Animal Sciences University (KVASU) auditorium at Pookode here on Thursday.

Dr. Honnapagol said a study coordinating various branches of science such as biotechnology, nanotechnology, and molecular epidemiology was needed to tackle zoonotic and trans-boundary diseases.

The symposium is being organised by the Indian Society for Veterinary Medicine (ISVM) in connection with its 33rd annual convention.

Dr. Honnapagol said animal health was as important as human health to achieve the goal of 'one health'.

He also explained the current livestock status of the country and the rise in demand for veterinarians. Delivering the patron's address, B. Ashok, KVASU Vice Chancellor, said the veterinary profession in India had missed out on the millennial transition on professional development.

Though the country wanted nearly 40,000 veterinary professionals every year, institutions in the country could generate only 6,000 professionals a year.

He said at least the 10 best veterinary colleges in the country should be upgraded to improve the standards of veterinary education.

He also released a book on "physical methods of examination and other simple techniques on clinical diagnosis in bovine practice" written by V. Gnanaprakasam, former Vice Chancellor, Tamil Nadu Veterinary and Animal Sciences University.

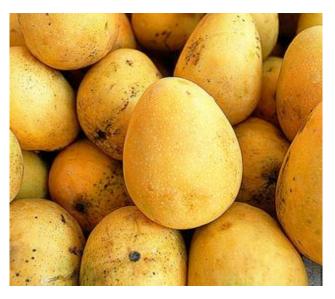
D.S. Nouriyal, president of the Indian Society for Veterinary Medicine,

presided over the function.

Joseph Mathew, Registrar; K. Devada, Director of Academics and Research; and T.P. Sethumadhavan, Director of Entrepreneurship, KVASU, spoke.

#### Lifting of ban on mango brings cheer

Farmers hopeful of revival after the European Union



Alphonso mangoes kept for sales.— File photo

European Union's decision to lift the seven month ban on import of Indian mangoes has brought cheer to the mango growers and exporters in Salem and Krishnagiri.

Alphonso mangoes are raised on 6,000 acres in Salem district and over 5,000 acres are under cultivation of table varieties of mangoes in Krishnagiri district.

Farmers in Krishnagiri who suffered a loss last year because of the ban are hopeful of a revival this year.

Each export variety fruit is grown to weigh 300 gm to 400 gm.

"We used to sell them for exports at Rs.100 a kg. Soon after the ban, we had no option but to sell it for Rs. 30 to Rs. 40 a kg. Now, with the ban lifted, we hope to make a profit this season," said Rama Gownder of Tamil Nadu Vivasayigal Sangam.

The scale of finance for manufacturing export quality mangoes is very high. The ban last year had led to a steep loss for farmers, who were ready with their cultivated varieties, he says.

Though Salem 'Alphonso' mangoes have carved out a prestigious place of its own in the South Indian market, they are not exported to the European Union.

Yet, revival of bulk export of Alphonso from the North Indian States will ultimately increase the demand for Salem Alphonso in the country, said A. Jayapal, president of the Salem Mango and Other Fruit Merchants' Association.

The lifting of the ban has immensely pleased the mango growers and dealers alike in Salem district as elsewhere in the country. It will improve the image of Indian mangoes as a whole in the world market, said a cross section of the mango traders.

The Salem Alphonso was exported mainly to Singapore, Malaysia and West Asian countries. The other famous varieties such as Salem Bengalura, Imampasand, Nadusalai etc are all choice varieties which have good demand in the local markets itself.

Since the EU has stringent conditions for the import of mangoes, the Salem traders found it very difficult to cope up with the same. Hence they preferred to export the mangoes to Gulf and East Asian countries, he says.

"The sudden ban imposed on the import of Indian mangoes shocked the entire mango trading community.

Now we heave a sigh of relief and we welcome it. We are all happy that this decision will pave way for more exports to European countries which in turn will boost the Indian economy," he said.

According to Mr. Gownder, who cultivates all table varieties on 15 acres, "We cultivate export varieties such as Alphonso and Sendhura organically

for the export market. These table varieties fetch a high price."

The neighbouring Dharmapuri has over 500 acres under export variety mangoes. Besides the pulp exporters, who rely on rejected fruits for the pulp export market, exports of table varieties provide a remunerative bargain for the farmers here.

#### KAU technology for solid waste disposal

#### SUCHITHA

The machine with 20 kg processing capacity requires only 1.5 sq m space and three units of electricity for operation. The automated equipment has two components, one for grinding and another for boiling. Any degradable waste, segregated at source, is ground to a paste by wet grinding. Two (patent pending) chemicals are added in two steps to the paste and boiled for one hour to yield a brownish black end product. This is dried by adding certain plant-based drying agents, fortified with small basic doses of essential plant nutrients and packed in convenient size.

A new technology developed by Kerala Agricultural University (KAU) for

safe and hygienic disposal of household garbage has been released for user trials.

The technology, which involves rapid conversion of degradable waste to value-added manure, was released by KAU Vice Chancellor P. Rajendran at a function held at the College of Agriculture, Vellayani, last week.

The bioconversion methods currently in operation necessitate the dumping of waste for long periods, leading to environmental pollution and human health problems. The KAU claims that the novel mechanism of bioconversion developed by scientists at the Department of Soil Science and Agricultural Chemistry is fast, efficient, non-polluting and completed within a day.

The research team led by C.R. Sudharmaidevi has fabricated a technology demonstration unit named Suchitha to be deployed for trials at various locations. The machine with 20 kg processing capacity requires only 1.5 sq m space and three units of electricity for operation.

A press note by the KAU said the product could be used as manure for various crops. The whole process was completed within a day.

#### Scarcity of planting materials in city

Spurt in organic farming leads to shortage of seeds, saplings



The surge in organic farming initiatives is due to the increased awareness on the importance of growing toxin-free vegetables at houses. A view of a backyard vegetable garden at Thiruvannur in Kozhikode.—Photo: K. Ragesh

The recent spurt in organic farming initiatives among people, including kitchen gardens and terrace farming, have led to a shortage of seeds, saplings and planting materials in the district, especially in the city areas.

The absence of adequate mechanisms in place to meet the increasing demand for planting materials has also been sighted as another reason for the current shortage.

The Krishibhavans, farmers' self-help group outlets under the Vegetable and Fruit Promotion Council Keralam (VFPC), and the sales centre of the Kerala Agricultural University (KAU) are the channels from which the farmers can purchase planting materials for regular use in their gardens.

#### Not enough

However, services of these agencies are not found to be sufficient enough to meet the increasing demand from people, especially those in the urban areas.

The KAU has only a small information-cum-sales centre in the district. As for the VFPC, none of the eight sales outlets in the city limits is functioning.

#### **Rented facility**

The sole information-cum-sale centre under the KAU has been functioning in a small rented facility at Vellimadukunnu here for over two decades now.

It does not have enough basic facilities to store farm-related materials including seeds, saplings, or manure, which are brought from the KAU farms and research centres in the neighbouring districts.

"There is a great increase in demand, but we do not get seeds or saplings to meet even half of our requirements. Nor do we have enough facilities to store them," says a staff member from the centre. Due to increased awareness about the importance of growing toxin-free vegetables on one's own premises, the demand has gone up considerably for the subsidised planting materials including vegetable grow bags that are distributed through the Krishibhavans.

#### Surge in demand

Most of the Krishibhavans are facing "unmanageable" demand from farmers and residents for grow bags. "We paid the money for a dozen grow bags a couple of months ago, but the Krishi Bhavan is yet to deliver them," says Hameed Koya, a resident of Kattanagal near Chathamangalam in the district.

#### **Rural areas**

Admitting that there is an unprecedented demand from people for planting materials including vegetable seeds and saplings, the VFPC district manager A. Sulfeekar says the council's outlets are somehow able to meet the demand for seeds and saplings in the rural areas.

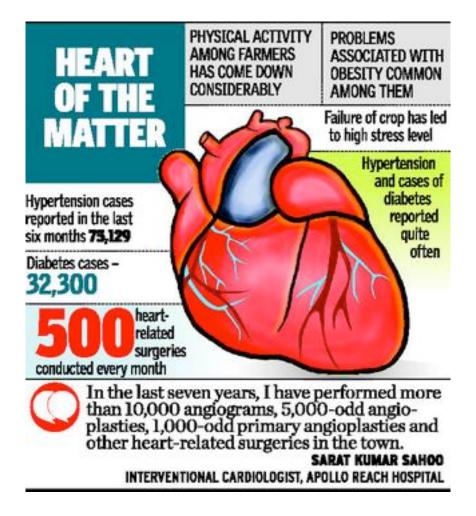
"However, we are helpless in the case of the urban farmers since we have no city-based outlets," he says.

#### The science of saving tigers

India is unique in having a significant number of tigers in the wild, in spite of growing population and resource extraction pressures on their habitat. The latest estimate of tigers in various landscapes published by the Ministry of Environment and Forests claims an appreciable rise in numbers of the big cat. That there could be as many as 2,226 tigers in the country — up from 1,706 four years ago — in nature reserves ranging from the hills in the Northeast to central Indian forests and the Western Ghats, besides the mangrove-rich Sundarbans delta, gives India a special place on the global conservation map. Clearly, some States deserve credit for strengthening the protection of wild tigers since the notorious wipeout in Sariska a decade ago. Such conservation measures, notably the extension of protected area boundaries, must continue. Yet, as credentialed scientists are pointing out, the numbers available from the latest count may merely indicate the presence of tigers in a given area, rather than serve as the conclusions of a definitive census. What they highlight is the need to improve those aspects of the ecology that lead to a rise in numbers — voluntary relocation of forest-dwellers from core forests, a severe crackdown on the hunting of prey animals, improved patrols against poaching, safeguards against harmful land-use changes and constant monitoring using scientific methods.

The science of conserving tigers, arguably the most charismatic animals on the planet, is increasingly focussed on saving 'source populations' of the cat. These are defined in the literature as sites where more than 25 breeding females can be hosted, in turn embedded in a larger landscape that can potentially have more than 50 female tigers and which enjoy protection. By some accounts, 70 per cent of the world's tigers are to be found in such sites; in India, 90 per cent of the population is part of 30 or 40 major source populations. As the Wildlife Conservation Society has pointed out, conservation of this stock holds the key to achieving a significant rise in their numbers in the coming years — potentially, India could have several thousand more if it provides them the requisite space and the connected landscapes that facilitate dispersal. In the current counting exercise, the Centre has done well to include non-governmental experts and rely on improved methods such as camera trapping, although it is yet to move to continuous monitoring and annual assessments. The government must be open to the idea of more intensive research within forests to protect the tiger and other endangered species, and adopt a liberal approach to permit bona fide independent scientists to work in protected areas. The encouraging status report on tigers awaits refinement and confirmation in March.

#### Mechanisation impacts ryots' cardiac health



Alarming situation in Karimnagar district, the rice bowl of Telangana

Mechanisation of farm activities in the district has increased productivity with Karimnagar earning the sobriquet of Rice Bowl of Telangana State. But, the achievement has also brought to the fore the rising number of heart ailment among the farmers.

Heart ailments, which were restricted to the urban areas, are now a cause for concern in the rural parts too. Due to mechanisation of farming activities, physical activity among the farmers has come down considerably. Problems associated with obesity are common among the ryots and failure of crop has only added to the stress among them. Hypertension and cases of diabetes are also reported quite frequently from the rural areas.

The District Medical and Health Officer, Dr. Aleem, admitted that there was increase in the number of heart-related cases. The Union government has included Karimnagar district in the national programme for control and prevention of diabetes, cancer and other non-communicable diseases such as Coronary Artery Disorder (CAD). The programme would be formally launched very soon in 10 clusters of Karimnagar district. He said that these centres would be manned by the doctors and counsellors to provide necessary treatment for people suffering from diabetes, hypertension and other non-communicable diseases.

Dr. Sarat Kumar Sahoo, interventional cardiologist at Apollo Reach Hospital here, echoed similar sentiments pointing out that there was a sharp rise in heart ailments in the rural areas. During the last seven years, he had performed more than 10,000 angiograms, 5,000-odd angioplasties, 1,000-odd primary angioplasties and other heart-related surgeries in Karimnagar town.

A doctor working at the government headquarters hospital here said that on an average every month around 500 related surgeries were conducted in Karimnagar in various hospitals. Besides, more than 500 patients were treated in corporate hospitals in Hyderabad. Of late, there is no physical activity for the farming community due to mechanisation and thus leading to various diseases such as hypertension and diabetes, said Ramachandra Reddy, a farmer from Manakondur mandal. He also said the failure of crops due to high investments was also leading to stress among the farmers.



#### Improved agronomic practice raises hopes of farmers

The farm school conducted at Kuthiraikulam.— Photo: N. Rajesh

The improved agronomic practice of broad bed furrow system cultivation with drip and fertigation techniques has paved the way for higher yield of horticulture crops.

Following the exposure to broad bed furrow system of cultivation at a farm school in Kuthiraikulam village of Ottapidaram block, farmers have are now confident of an improved yield. This agronomic method is the base for using drip irrigation in horticulture, according to Deputy Director of Horticulture, R. Avudayappan

At this village, I horticulture crops such as tomato, bhendi, brinjal, elephant yam and sirukilangu (Chinese potato) are raised. Farmers practised either flood irrigation or furrow system of irrigation. These old irrigation techniques not only resulted in using generous amount of water, but also increased the weed population and ultimately reduced the yield of horticulture crops, officials said. To sensitise farmers to switch over from non-beneficial farming methods, horticulture officials adopted this village and initiated several measures to educate them in the new technique, through which an increase of 20 to 30 per cent yield was ensured, Mr. Avudayappan told *The Hindu* here on Tuesday.

Assistant Director of Horticulture, Ottapidaram, C. Palanivelayutham spoke.

#### Farm pond transforms arid land

A piece of two-acre arid land in Meenakshipuram village of Srivilliputtur panchayat union now gives good yield of guava, lemon and flowers, thanks to a farm pond provided under the Integrated Watershed Management Scheme.

The farmer, Ramar, told the Collector, V. Rajaraman, who was on an inspection on Thursday, that the water table had risen in his well by about 15 feet and the land was a picture of contrast when compared to adjoining fields. The arid land had turned green and the lemon trees yielded 50 kg of fruits.

Another farmer, Jayapal, also said that the farm pond had improved water level in wells and also fetched a steady income through fish breeding.

The scheme is implemented in 140 watersheds in nine panchayat unions in the district, according to an official press release.

#### **Tea Development Conference tomorrow**

With the tea industry here going through difficult times, the Vivasayigal Thozhilalargal Munnetra Sangam has made arrangements to organise a National Tea Development Conference at Gudalur on January 24. Addressing a press conference on Thursday, Convener South Indian Farmers Organisations M.S.Selvaraj said that the objective was to bring together all the stake holders from Tamil Nadu, Kerala, Karnataka and Andhra Pradesh.

The meet would focus on modernisation of tea factories in the cooperative sector and evolve ways to bring tea under the control of the State Government. It would propagate the medicinal value of tea while suggesting quality improvement measures. The meet would also underscore the need to fix a reasonable support price for the raw tea leaves of the small growers.

#### Smart' boost to Nellore district



With the industrialists and NRIs showing interest, many villages and municipal wards in Nellore district are all set to get the 'smart concept'

advantage wherein they will enjoy well-developed basic facilities like roads, drinking water supply, schools and so on.

The district officials have drawn elaborate plans for pushing the smart concept among the donors, especially sons of the soil prospering elsewhere in the country and the world. This is in view of the fact that they would be interested in making good contributions to the growth of their native places.

Accordingly, for the benefit of interested people, all information regarding the present conditions in over 940 villages and 240 wards would be posted on the Andhra Pradesh government website soon. The adoption of villages and wards is being encouraged by the government under the 'Smart AP' programme which is aimed at developing smart villages and wards in a big way. Besides basic amenities, maintenance of high levels of cleanliness and sanitation also assume greater importance under this drive.

During their visits to rural areas, Collector M. Janaki and Joint Collector Imthiaz Ahmed are making it a point to enquire about basic amenities in villages. The officials down the line are instructed to gather data about the requirements for making the smart concept workable with information about this being made easily available for the probable donors.

After Puttamraju Kandriga, village in the district, hit headlines following adoption by the cricket icon Sachin Tendulkar, the concept of developing rural areas with active participation of people's representatives got a fillip in these areas. Several MPs and MLAs have also come forward to adopt villages with this inspiration.

Along similar lines, island village Irukam and mainland villages like Pallipadu await immediate participation of well-to-do people and public representatives to take up their development under smart concept. The officials said once the developmental works under this concept started in villages on a large-scale, it would create greater scope for creating employment for rural workers and agricultural labourers. This would help in poverty alleviation to a large extent.

#### NGO to hold State-level meet for farmers, women

NGO Bala Vikasa will hold four State-level conferences involving farmers, women, water plan management committee members and village development committee members from January 24 to 28 at its premises in Kazipet here.

Executive director of the NGO S. Shoury Reddy said they had trained and encouraged farmers to switch to organic farming. Over 500 farmers in 25 villages now practice organic farming. The farmers will share their experiences with each other and with new farmers, at an annual conference planned on January 24. Bala Vikasa also has a Self-Help Group for women that now has over two lakh members. They will meet on January 25.

"Over 4,000 women from Telangana and Andhra Pradesh states will take part in the conference," Mr. Shoury Reddy said.

Committees formed to oversee the drinking water plants established by Bala Vikasa and panels constituted for the development of villages have brought about some tangible results. "The members of these two committees will also come here on January 27 and 28," Mr. Shoury Reddy said.

Deputy Chief Minister T. Rajaiah, Ministers Etela Rajender, T. Harish Rao, K.T. Rama Rao, Deputy Speaker A. Padma Devender Reddy, MPs Kadiam Srihari and B. Vinod Kumar, and DIG B Malla Reddy are expected to attend.

#### A free shed farm makes a mark



Farm at Ayiroor in Thiruvananthapuram is a unique concept

: A free shed dairy farm, a concept that is still in its nascent stages in the State, is drawing visitors to Ayiroor in the district, where three brothers have set up such a farm with help from the State Dairy Development and Animal Husbandry departments.

According to an official release here on Thursday, there are over 25 cows, without nose rings or ropes to tether them or any sort of confinement, that roam freely in the farm, set up by Hammad, Amlad and Ashraf.

The trio, engaged in dairy farming since 2007, had sought technical assistance from Pattom-based veterinary doctor Muralidharan to set up the farm on a plot of about 70 cents, with 14m-wide pathways for the cows to roam around, apart from special platforms for each cow.

The farm, which has space for 65 cows, will soon have 24 more cows in addition to the present 25, the release said.

The uniqueness of the concept, according to the release, was that the cows were free and self-sufficient, literally, with each of them reaching a specially set up 'milk parlour' on time for milking and food. This was made possible through a three-month training session.

The milking parlour is automated, with cows standing in a line before the milking machine. Six cows can be milked simultaneously in 10 minutes,

with soft music from an FM radio inside the dairy helping them relax, the release said.

The farm, which required Rs.40 lakh put together with help from the Diary Development department and loans from a private national bank, now gets 200 litres a day, of which about 100 litres are supplied to people of the locality while the rest goes to Milma via the local dairy farmers' cooperative society. The revenue from the farm, the release said, was Rs.70,000, after all expenses in a month.

#### Organic spray to control fruit rot disease in arecanut palms may be in the offing

Fruit rot disease or 'kole roga' in arecanut palms during rainy season can be brought under control through an organic spray developed by a private company here if the filed trials proved a success.

Addressing presspersons here on Thursday, Konkodi Padmanabha, President, the Central Arecanut and Cocoa Marketing and Processing Cooperative Ltd (CAMPCO) said that laboratory trials by the company has become a success. The company was yet to go for filed trails which could be done in the coming rainy season. As the laboratory trail was success the cooperative would extend some financial support to the company for the field trials, he said.

Traditionally farmers sprayed copper sulphate lime mixture or solution to control the disease. So far no organic spray has been released to control the disease. If the field trails were success there would be an alternative solution to control the disease.

To a question he said that a case pertaining to Ankur Gutka vs India Asthama Care Society and others pending before the Supreme Court would come up for next hearing on March 25. The CAMPCO has impeded in the same case not to ban arecanut. He said so far the Union government has not filed any supplementary affidavit before the court (pressing that arecanut is not injurious to health) relating to the case. Recently Union Minister for Law and Parliamentary Affairs, D.V. Sadananda Gowda had stated in Vitla that the government would file a supplementary affidavit before the court if possible in January.

#### S. Africa: record number of rhinos killed in 2014



#### AP

The number of rhinos killed by poachers — 827 of which were in the country's famous Kruger national park in 2014 — has risen rapidly in the last decade. A file photo of a one-horned rhinoceros.

Asian demand for rhino horn is cited as the reason behind raise in poaching

The number of rhinos killed in South Africa last year jumped by nearly a fifth, marking a new record for poaching, driven by Asian demand for rhino horn which is more valuable by weight than gold.

A total of 1,215 rhinos were killed in 2014, statistics published by the Environment Ministry on Thursday showed, in what environmentalists said was now a "do or die situation."

The number of rhinos killed by poachers — 827 of which were in the country's famous Kruger national park in 2014 — has risen rapidly in the last decade.

Just 13 were killed in 2007, but demand from a growing affluent middle class in Asia has seen new records broken every year, with 1,020 killed in 2013. In Vietnam, ground horn sold as rhino horn wine is erroneously viewed to have health benefits and is seen as a status symbol.

Tom Milliken, elephant and rhino programme leader at illegal wildlife trade NGO Traffic, said: "Another year of poaching like 2014 and it becomes increasingly difficult to see a positive conservation future for South African rhinos." — © Guardian Newspapers Limited, 2015



### To weed out corruption, state takes away water-allocation power from ministers

Nearly a month after announcing a probe into the high profile irrigation scam that had rocked the previous Congress-NCP govt in Maharashtra, the BJP-led government in the state has now taken another step to stem corruption in the sector.

The government has decided to divest the Maharashtra cabinet's power to take decisions on allocation of water from a dam. These would now be delegated to chief engineers overseeing the five statutory irrigation development corporations in the state.

During the previous government, there were allegations that large-scale dam water meant for irrigation was diverted for industries and domestic use. NCP leader and the then deputy chief minister Ajit Pawar was caught in a controversy with a Pune-based NGO Prayas claiming that between 2003 and 2011, Pawar, as water resources minister and later finance minister, chaired in a high-powered committeethatpermitted "diversion of almost 2,000 million cubic metre (mcm) of water meant for irrigation for non-irrigation purposes from 51 dams in state."

The NGO had further alleged that the "large-scale diversion resulted in reduction of state's irrigation potential by about four lakh hectares."

Aftert these allegations surfaced, Prithviraj Chavan who was the chief minister then had disbanded the committee, saying that all proposals for water allocation must be placed before the cabinet. But with the issue leading to friction between the Congress and the NCP and an intense drought hitting the state in 2012-13, the Congress-NCP cabinet avoided taking decisions for allocation of water to industries.

But now in a fresh turn, Chief Minister Devendra Fadnavis has decided to limit the powers of his cabinet in this regard. While the cabinet will continue to exercise powers over allocation of the total amount of water to be allocated for industry and drinking water purposes (sectoral allocation) from a dam project, a senior official confirmed that the "powers to approve individual proposals within the sectoral limit prescribed would now vest with the Chief Engineer."

Official sources confirmed that Fadnavis has already given consent to this proposal. Accordingly, the state's water resources department is readying a note to modify the norm, which would soon be placed before the cabinet. It was however clarified that a cabinet nod will still be required for "reservation of water beyond the prescribed sectoral limit."

In December, the Chief Minister had agreed to allow the state's Anti Corruption Bureau (ACB) to probe the roles of Pawar, and former NCP minister Sunil Tatkare among others over allegations of corruption in irrigation contracts.

Interestingly, while delegating powers at the lower level, the government has also decided to cut discretion. TN Munde, Joint Secretary, Water Resources Department, confirmed that the department plans to roll out an online initiative for applications seeking allocation of water for either domestic or industrial purposes from April 2015 onwards. "The entire procedure will take place online. The water available for allotment to either industries or for drinking water use for all dam projects would be available in public domain. The permissible water quota for these categories will also be displayed," Munde said. "A customer could apply water for industries and domestic at the same time in one go. On approval or rejection of an application, a mail or a sms would directly be sent to the applicant. A token number will be provided for tracking the status online," he added. Fadnavis has plans to link the move to his "Make in Maharashtra" plan. Sources said he has directed the department to ensure that applications for water allocations were decided within 15 days. These decisions take from six months to a year currently. The department also has plans to tie up with the state Industries department for this initiative. It has recently launched an online application (e-Jalseva), where details of availability of water, reservations approved for irrigation and non-irrigation purposes, and actual consumption in each river basin has been collated. "The database will help locate industries based on need and availability of water," a senior official said. Ironically, going by the database, less than 18 per cent water from dams has so far been reserved for non irrigation purposes. Of this, diversions permitted for industrial purposes account for 5.24 per cent, whereas drinking water (domestic uses) make up the remaining 12.58 per cent.

#### State braces for another round of protests by sugarcane farmers

Trouble is brewing in the sugarbeltof the state as factions of the Shetkari Sanghatana are gearing up to launch an agitation against the failure of the sugar mills topay the fair and remunerative price (FRP) for sugarcane to farmers.

Swabhimani Shetkari Sanghatana leader and MP Raju Shetti has said he will be launch an agitation on February 2, while Punjabrao Patil, leader of the breakaway faction Baliraja Shetakari Sanghatana, will start an agitation from Saturday.

The payment of FRP for sugarcane has been halted in many parts of the state with the sugar mills expressing their inability to pay the price of Rs 2,200 per tonne of sugarcane fixed by the centre. While harvesting of 50 per cent of the crop has already been done, farmers are complaining that the mills are paying them at the rate of Rs 1,900 per tonne. As per law, FRP has to be paid within 14 days of acceptance of cane.

A few weeks ago, Shetti's men had gone on the rampage at the Sugar Commissionerate in Pune breaking windowpanes and smashing flower pots. The police had taken Shetti and his men in custody and an FIR was lodged against him. Cooperatives Minister Chandrakant Patil had asked the sugar mills to pay the FRP but had ruled out any immediate package to bail out the sugar industry. Both Patil and Chief Minister Devendra Fadnavis had met Union Finance Minister Arun Jaitley and others to discuss the matter. The Sugar Commissionerate had issued notices to 119 sugar mills and initiated legal action against them.

Both Shetti and Punjabrao Patil said the sugar mills had failed to pay the farmers even after the chief minister' announcement. Patil said they would be agitating outside the sugar commissioner's office on Saturday to highlight their demand. "If our demands are not met, we will hit the road from next week," he said. Patil fell out with Shetti last year and formed a separate body in protest against Shetti's political alliance with the BJP.

Shetti, on his part, accused the state government of not being serious about the issue. "From February 2, we will re-launching our agitation and will not stop till the farmers get their dues," he said.

### THE TIMES OF INDIA

#### Recipe: Yummy Banana Muffins



Recipe: Yummy Banana Muffins (Photograph: Arunima Mazumdar) Muffins are loved by children and adults alike. Eat them for breakfast with coffee or have them as an evening snack. What's more, you can never go wrong with baking something as easy as muffins!

Today we bring to you a simple Banana Muffins recipe that combines the goodness of a fluffy cup cake and the sweet flavours of banana. High on taste and light on tummy, they make for perfect home nibbles as well as great treats when you have guests over.

#### Ingredients

250 grams all purpose flour
75 grams butter
2 ripe bananas (mashed)
2 eggs
1 cup milk
1 tsp vanilla essence
1 tsp baking powder
1 tsp cinnamon powder

tbsp honey
 cup castor sugar
 A pinch of salt

#### Method

1. Preheat oven at 190 degrees for 5 minutes and melt butter in a pan.

2. In a bowl, sift the flour, baking powder, cinnamon powder and salt, all together.

3. In another bowl, beat the eggs until fluffy. Add to it the vanilla essence, milk, honey, the melted butter and the mashed bananas.

4. Add this mixture slowly to the bowl that has flour, stirring constantly to get a thick and lumpy batter.

5. Grease the muffin moulds with butter/oil and fill them with the batter.

6. Bake them at 190 degrees for at least 25 minutes and allow a stand-by time of 10 minutes later.

7. Serve while they're warm with a scoop of vanilla ice cream by the side.

#### Healthy weight gain recipe with upma



Healthy weight gain recipe with upma (Thinkstock photos/Getty Images)

If your constant worry is - "How can I gain weight?" we've got just the healthy weight gain recipe for you. Today we look at a recipe that can help you pile on some healthy pounds.

Nutritionist, Priya Kathpal with BCube shares this super easy and super healthy weight gain recipe with broken wheat for upma. The recipe is healthy, rich in fiber and vegetables. Gain weight with Broken Wheat Upma.

#### **Broken Wheat Upma Recipe**

#### **Ingredients:**

<sup>1</sup>/<sub>4</sub> cup broken wheat
1 onion
1 green chilli
<sup>1</sup>/<sub>4</sub> cup green peas
<sup>1</sup>/<sub>4</sub> cup carrots
<sup>1</sup>/<sub>4</sub> cup paneer
2 tbsp coriander
1 tbsp oil and salt to taste

#### Method:

Chop onions, green chilli, grate paneer and cut carrots in cubes.

Clean, wash and blanch broken wheat in 2 cups of water for about 5 mins. Drain it!

Heat oil in pressure cooker, add onions and green chilli, saute till light brown.

Add peas, carrots, broken wheat and salt, saute for about 5 mins.

Add 1 <sup>1</sup>/<sub>2</sub> cups of water and pressure cook for 1 whistle.

Garnish with coriander and grated paneer. Serve hot.

#### Now that's eggs-traordinary!



Now that's eggs-traordinary!

Bored of the same way you're eating your eggs at breakfast? Try something new for a change. Here are ways to dish up nifty omelettes for your first meal of the day...

**Mushroom omelette:** Lesiurely Sunday 'brekkie'? Try this one made with slow-cooked mushrooms, cream cheese and onion. Just fold the mushroom and onion into the omelette and it's ready!

**Green garlic omelette:** A perfect winter recipe, an omelette with green garlic (available in markets now) makes for another tasty dish. To make it, beat the eggs and keep aside. Saute the garlic in olive oil, add the herbs to this and pour your egg mix into it. Cook on one side on medium flame, till it is set. Do not stir. Invert the egg carefully with a spatula to cook the other side. Serve with crusty, brown bread.

**Shrimp omelette:** Who says egg and fish do not mix? We tried adding some pepper-sauteed shrimp to the egg and it was delicious. You can also add finely chopped spring onion leaves for added flavour. Just remember not to use any other spice while cooking it.

**Frittata:** The frittata, a cousin of the omelette, makes for a hearty bite. An open-faced dish, it has a combination of vegetables, like tomato, zucchini and broccoli as well as greens, cheese and meats. It is cooked well till it browns on one side. Always lightly cook the ingredients in a little butter separately, before adding them to the egg mix in the pan.

**Broccoli omelette:** Broccoli omelettes are apt for those on a health food spin. It's also a quick-fix as broccoli needs no time to cook. Saute it with some chunks of onion and cheese and fold this into the egg mix. Slow cook it on one side and flip.



Eat walnuts daily to boost memory

Eat walnuts daily to boost memory (Getty Images) Eating less than a handful of walnuts daily as a snack or as a part of a meal can sharpen your memory, says a study.

The first-ever large representative analysis of walnut intake and cognitive function found that eating just 13 grams walnuts a day improved memory performance on cognitive function tests, including those for memory, concentration and information processing speed.

In this study, participants included adults aged 20-59 as well as 60 and over.

Lenore Arab, a doctor from David Geffen School of Medicine at University of California, Los Angeles, and co-researcher Alfonso Ang, also a doctor, found that participants with higher walnut consumption performed significantly better on a series of six cognitive tests.

Cognitive function was consistently greater in adult participants that consumed walnuts, regardless of age, gender or ethnicity.

"The analysis supports previous results of animal studies that have shown the neuroprotective benefit from eating walnuts and it is a realistic amount -13 grams," Arab said.

There are numerous possible active ingredients in walnuts that may be contributing factors in protecting cognitive functions.

This includes the high antioxidant content of walnuts and the combination of numerous vitamins and minerals.

Walnuts also contain a significant source of alpha-linolenic acid (ALA), a plant-based omega-3 fatty acid with heart and brain-health benefits.

It includes the possible beneficial effects of slowing or preventing the progression of Alzheimer's disease.

According to a 2012 World Health Organisation (WHO) article, the estimated number of new cases of dementia each year worldwide is nearly 7.7 million and the number of people living with dementia worldwide is estimated at 35.6 million.

This number is predicted to double by 2030 and more than triple by 2050.

#### Health benefits of corn



In addition to its sweet, savory taste, corn offers multiple health benefits as well. Some of them include...

1. Corn is high in fibre and low in fat, which helps prevent constipation and aids better digestion.

2. It is rich in carbs as well as calories and hence, a good dietary intake if you're looking to gain some extra pounds.

3. Corn greatly reduces the risk of diabetes. It is also rich in carbohydrates and protein and helps prevent stress.

4. The yellow kernels of corn contain arytenoids that reduce the risk of any sort of visual impairment.

5. Corn is also beneficial for pregnant women, and health experts advise expecting mothers to add it to their regular diet.

6. Corn has a positive affect on bringing down cholesterol levels and is particularly beneficial for heart health. It also helps in combating cardiovascular diseases.

7. Corn starch is used as an ingredient in a number of cosmetic products. Several experts say that it can even be applied topically to soothe skin rashes and irritation.

## BusinessLine Time to review Food Security Act: panel on FCI revamp

Recommends slashing food security coverage to 40%, revisit of MSP policy



#### New Delhi, January 22:

Terming the National Food Security Act as the 'Vote Security Act', the Shanta Kumar-led high-level panel has called for a relook at the Act to reduce the coverage of subsidised foodgrains to 40 per cent of the population from 67 per cent, but raising the per person entitlement from 5 kg to 7kg.

"Even before the elections (2014 Lok Sabha), many people in the BJP were of the opinion that 67 per cent was too high. Since the elections were due, it

was decided that once in power, we would relook the issue," said Kumar, a senior BJP leader and former Chief Minister of Himachal Pradesh, while briefing the media on the panel's recommendations.

The eight-member panel set up in August 2014 on restructuring of Food Corporation of India (FCI) – the nodal agency for procurement of foodgrains – submitted its report to the Prime Minister on Wednesday.

In its recommendations, the panel said that Antyodya households (poorest families) can be given grains at Rs. 3/2/1/kg for the time being, but pricing for priority households must be linked to minimum support prices (MSP), say, 50 per cent of MSP.

"Else, this Act will put undue financial burden on the exchequer, and investments in agriculture and food space may suffer," it said.

#### **Revisit MSP policy**

The panel also pitched for revisiting the minimum support price (MSP) policy, saying that only 6 per cent of the nine crore farmers were today gaining from such a policy.

It said the current MSP is announced for 23 commodities, but effectively price support operates primarily in wheat and rice, that too in selected States.

"This creates a highly-skewed incentive structure favour of wheat and rice. While the country is short of pulses and oilseeds (edible oils), their prices often go below MSP without any effective price support," it said, adding that pulses and oilseeds deserve priority.

#### Deregulate fertiliser sector

Recommending direct cash transfers for food and fertiliser subsidies that could help the government save about Rs. 33,000 crore, it said this amount can be invested in 'irrigation and market development'.

It also called for deregulation of the fertiliser sector.

"There is 40-50 per cent leakage in subsidies, which impacts small and marginal farmers the most," said Kumar, adding that if the panel's recommendations are accepted, the results could be 'magical.'

While admitting that FCI had played a positive role since its inception in the 1960s, panel member Ashok Gulati, former Chairman, Commission for Agricultural Costs and Prices, said it was time for the procurement agency to pull out from operations in States such as Haryana, Punjab Andhra Pradesh, Chhattisgarh, Haryana, Madhya Pradesh, Odisha and Punjab.

"FCI will accept only the surplus (after deducting the needs of the States under Act) from these State governments (not millers) to be moved to deficit States" the panel said.

#### Look East

Instead, FCI should shift focus to Eastern States, such as Bihar, West Bengal, Assam, eastern Uttar Pradesh and so on, where farmers suffer from distress sales at prices much below MSP and are dominated by small holdings.

This is the belt from where second green revolution is expected, and where FCI needs to be pro-active," Gulati said.

At present, of the total procurements made by FCI, wheat accounts for 12 per cent, paddy 2 per cent and rice 70 per cent.

"The new model can also look at getting in the private sector in food management, such as procurement, stocking and distribution of foodgrains," said Gulati, adding that "more players will lead to competition and bring prices down for consumers."

In a situation where FCI godowns are overflowing but the people are going hungry, FCI needs greater flexibility, he said, adding, "We can't keep waiting for a Cabinet note to decide... and should have the flexibility to sell the surplus in the open market or export."

#### **KEY RECOMMENDATIONS FOR FCI**

\* FCI should outsource stocking operations to various agencies, including private ones, on competitive bidding basis.

\* Old conventional storages can be converted to silos with help from private sector and other stocking agencies.

\* Movement of grains needs to be gradually containerised to cut transit losses

\* Notified depots should be put on priority for mechanisation to cut reliance on departmental labour. Condition of contract labour should be improved.

#### Insufficient supply of karimeen in Kerala

Farmers encouraged to go for pearl spot culture

#### Kochi, January 22:

For tourists visiting Kerala, *Karimeen* or pear spot fished-based dishes are an added attraction. Low on fat and high on protein, the dishes are rich in omega-3 fatty acids and riboflavin. *Karimeen*, a costly affair now due short supply, is likely to become more affordable, thanks to the efforts of Central Marine Fisheries Research Institute.

Helped by Krishi Vigyan Kendra (Ernakulam), the institute has launched pearl spot seed production.

According to Shinoj Subramannian, Programme coordinator, KVK, pear spot fish annual production of 2,000 tonnes now is insufficient to meet demand. Demand in the domestic market is projected to rise to 10,000 tonnes. To bridge the supply-demand gap, many farmers have taken up pearl spot culture as it is a profiting enterprise.

Since Kerala declared pearl spot as the State fish in 2011, there has been growing demand for the seeds. Low fecundity (productivity rate of an organism) and the parental care required for juveniles of this particular variety are the major constraints in large-scale seed production. Currently, seeds (fry/fingerlings) required for the culture are collected from the wild due to constraints in hatchery production. However, over-exploitation of indigenous pearl spot seeds from the wild has resulted in the depletion of standing stock in recent times.

Subramannian said that through this participatory method KVK intends to ensure mass seed production by trained farmers. The first such sale was conducted at a satellite seed production centre at Kumbalangi in Ernakulam district. PA Vikas, subject matter specialist, KVK, said natural seed production is assisted by creating well-prepared ponds to ensure healthy brood stock.

The average seed production during peak season will range from 30,000-35,000 per acre and during other times, it would be around 15,000-20,000 per acre.

A farmer can easily fetch a yearly gross income of Rs. 5 lakh per acre, while the production cost will be only Rs. 1.5 lakh per acre, he said.

#### Soya oil imports seen topping 2 million tonnes on lower output



#### Ahmedabad, January 22:

Lower domestic production and increasing consumption may result in record import of soyabean oil in the country during 2014-15.

Industry estimates suggest the country's soyabean oil imports may touch over two million tonnes, the highest in a decade. According to the data provided by Solvent Extractors' Association of India (SEA), soyabean oil imports for November 2014 jumped by more than seven times to 121,097 tonnes against 14,980 tonnes in November 2013.

Oil crops have marketing year from November to October.

Further, on the production front, the Central Organisation for Oil Industry & Trade (COOIT) has estimated the soyabean crop at 9.17 million tonnes (mt) against 9.50 mt last year. Domestic soya oil production is expected to be 1.30 mt (1.40 mt).

The US Department of Agriculture puts the domestic consumption of soyabean oil in India to be at around 3.45 mt (3.3 mt). Raju Choksi, Vice-President (Agri Commodities), Anil Nutrients Ltd., a part of Anil Group of Companies, said, "soya oil consumption in India has grown by compounded annual growth rate of around seven per cent in the last five years. However, the production has largely remained stagnant in the range of 1.4-1.7 mt. We believe soyabean oil imports will cross last year's level and touch two mt this year."

He maintained that prices have fallen significantly due to higher global supply, which has impacted domestic prices also.

"Falling domestic prices has resulted in lower crushing pace as farmers tend to hold on to their produce," Choksi said.

#### 'Kisan Samsath' to be platform for farmer-MP interaction

'Agri Machinery Fair' at Puttur from tomorrow

#### Mangaluru, January 22:

The Members of Parliament (MPs) from arecanut-growing regions in Karnataka and Kerala will field questions from farmers at 'Kisan Samsath' at Puttur in Dakshina Kannada district on Saturday.

The 'samsath' is being held as part of the three-day 'Agri Machinery Fair 2015,' jointly organised by Central Arecanut and Cocoa Marketing and Processing Cooperative (Campco) Ltd and the Arecanut Research and Development Foundation. 'Agri Machinery Fair 2015' will be conducted at Puttur from January 24 to 26.

#### Farmers' meet

Addressing presspersons in Mangaluru on Thursday, K Padmanabha, president of Campco, said that around 1,000 farmers from different districts of Karnataka and Kerala have already confirmed their participation for 'samsath'.

These farmers will ask questions on agriculture and other related issues to the MPs. The elected representatives would have to answer those queries, he said. BS Yeddyurappa, Shimoga MP, will preside over the 'Kisan Samsath'.

Nalin Kumar Kateel, Dakshina Kannada MP, Ananth Kumar Hegde, Uttara Kannada MP, Karunakaran P, Kasaragod MP, Shobha Karandlaje, Udupi-Chikmagaluru MP, Muddahanume Gowda, Tumkur MP, Pratap Simha, Mysore-Kodagu MP, and Chandrappa, Chitradurga MP, will participate in the 'Samsath' proceedings, he said.

Stating that this is the third edition of 'Agri Machinery Fair', Padmanabha said all the 240 stalls in the fair have already been booked. The second edition of 'Agri Machinery Fair', which was conducted in 2012, had 140 stalls, he said.

Considering the need to encourage the spirit of innovation among students, the organisers have decided to give 'Varanashi awards' from this edition in the memory of late Varanashi Subraya Bhat, founder president of Campco.

#### Awards for students

Students of various engineering colleges in the region have sent around 50 projects on agricultural machineries for this award. Of them, two will be selected and awarded suitably, Padmanabha said.

A postal cover on Varanashi Subraya Bhat will also be released in the machinery fair, he said. The organisers are expecting the participation of around four lakh people in the three-day event, he added.

# **Business Standard**

Too much sugar in India means mills banking on export subsidies

## A bigger harvest will boost India's 7.5 mt stockpiles and hurt prices that capped a fourth year of losses in 2014, the longest run since 1962

The sugar harvest in India, the world's biggest producer after Brazil, is forecast to climb to the highest level since 2012, increasing pressure on the government to subsidise exports and trim stockpiles. Production may rise to 26 million tonnes (mt) in the year that began on October 1, according to the median of estimates from nine traders, producers and analysts compiled by Bloomberg. That would be the highest since 2011-2012 and more than the 25 million to 25.5 mt forecast by the Indian Sugar Mills Association on December 18. Output jumped 19 per cent to 10.3 mt by January 15 from a year earlier, association data show.

A bigger harvest will boost India's 7.5 mt stockpiles and hurt prices that capped a fourth year of losses in 2014, the longest run since 1962.

While subsidised shipments will help mills that are forced to buy cane at prices set by the government, they will suppress world prices further as India exports threaten to exacerbate a global glut, according to Green Pool Commodity Specialists Pty, a researcher. "The global market is simply too low to consider exports of raws from India without subsidy," Tom McNeill, a director at Brisbane, Australia-based Green Pool, said in an email. "The market will be pressured if India decides to put a subsidy."

Futures have rebounded 9.6 per cent this year to 15.92 cents a pound on ICE Futures US, after sliding 12 per cent in 2014. They were as high as 36.08 cents in February 2011.

The International Sugar Organization estimates there is a global surplus of 473,000 tons in the year starting October 1. Mills may export 1.5 mt of raw sugar this season with a subsidy of Rs 4,000 (\$65) a ton, the survey shows.

Shipments have stopped in October after the government suspended incentives for foreign sales. Spot prices of refined sugar were at Rs 27,450 a tonne as of January 21, according to the National Commodity & Derivatives Exchange in Mumbai.

Mills can't plan raw sugar production without a decision on the subsidies, the association said. The government is working on a subsidy proposal, Food Minister Ram Vilas Paswan said January 21 in New Delhi, without giving details. India needs to ship 1.5 mt to 2 mt with incentives to help producers pay farmers on time and repay loans to the banks, the association said on January 16.

Bajaj Hindusthan Ltd, India's biggest producer, made six straight quarterly losses through September 30 while Balrampur Chini Mills Ltd, the secondlargest, failed to make profit in five of the last six. Shree Renuka Sugars Ltd, the biggest refiner, also reported six straight losses through September 30, data compiled by Bloomberg show.