

#### Groundnut auction

The groundnut auction at the Konganapuram branch of the Tiruchengode Farm Produce Cooperative Society registered a sales turnover of Rs. 8 lakh on Friday. Farmers from different parts of western region had brought about 1,000 bags of groundnut crop. A 60 kg bag of dry groundnut fetched a price between Rs. 850 and

Rs. 1,100. Raw groundnut fetched a price between

Rs. 1,250 and Rs. 2,430.

Scientist cautions farmers against 'toxic banana plants'



Vigil must be stepped up to prevent a few exotic banana plants, which are highly disease prone, said Nicolas Roux, senior scientist and project coordinator, Genetic Resources and Genomics, Bioversity International, on Saturday.

Speaking at the inauguration of a weeklong workshop on "Musa Germplasm: Identification Towards Optimising Use" here, he said the tendency of relying on one or a few genetically similar cultivars of a group would always carry high risk. It had been well illustrated by the 'Fusarium' wilt epidemic on Gros Michel banana in several countries. It caused an estimated financial loss of around \$ 2.3 billion to the banana industry. The figure would be greater if cost was included on the scale of unemployment, displacement of farmers, unrealised income, and expenditure to them in the affected regions.

Although India was not affected by the epidemic, Mr. Roux said there was a need to protect banana crops against diseases. If the varieties were unchecked and unprotected, it would cause huge financial loss to the growers.

The disease-prone exotic varieties should not be allowed. Similarly, the current diversity of *Musa*, both wild and cultivate, must be explored to broaden the genetic base of wild and edible diploids used in breeding programmes.

It would increase the crops' diversity in farmers' fields. It would ensure buoyancy in banana production systems. The use of *Musa* genetic diversity would provide the best insurance against current and future threats of vulnerable banana dependent populations.

Stating that the country had excellent potential to step up horticulture production, N.K. Krishnakumar, Deputy Director-General, ICAR, New Delhi, said many technologies had come up in the recent past to minimise water and fertilizer use as well as increasing productivity.

The Theni region in Tamil Nadu had become a model on using technical knowhow to increase banana production. More and more farmers were coming forward to shun the traditional cultivation of banana.

The farmers had started reaping the benefits of adapting the modern method of cultivation.

M.M. Mustafa, director, National Research Centre for Banana, Tiruchi, said the workshop would address the most urgent needs of *Musa* collection curators on the management of banana and associated information. It would review the current practical and common description methodology with the Taxonomic Reference Collection Project (TRCP) partners and resource persons.

# Research on pest resistant varieties of marigold, capsicum in advanced stages: Vice-Chancellor

D. Maheswar, Vice-Chancellor of Horticulture University, has said that the research on developing two new high yielding and pest resistant varieties of capsicum and marigold flower is in the advanced stage and it will go a long way in increasing the income levels of horticulture farmers.

He told presspersons here recently that the scientists in the university were now conducting field trials on the university campus and the initial results were encouraging.

The university had proposed to set up a Horticulture Information Centre and Farmers Research Centre in Kalaburagi, Yadgir and Bidar districts to reach out to farmers elsewhere in the State and popularise horticulture in districts where the coverage of horticulture crop was low. A proposal had been submitted to the State government.

To a question, he said that the university located at Bagalkot had started a new diploma course in grape production and processing of wine this academic year and the response from students was encouraging. "Twenty students have taken admission," Dr. Maheswar said.

He said that Chief Minister Siddaramaiah would formally inaugurate the mega horticulture fair organised by the university on its campus at Bagalkot from December 12 to 15. Minister of State for Agriculture Krishna Byre Gowda and Horticulture Minister Shamanur Shivashankarappa would participate.

#### Farmers protest seek procurement centres

Farmers under the banner of the Karnataka Rajya Raitha Sangha staged a protest outside the Deputy Commissioner's office here on Friday and demanded that procurement centres be set up in the district to purchase groundnut, cotton, red gram and paddy.

They said that farmers' long-pending demand to announce scientific prices for farm produce should be fulfilled as they were finding it difficult to recover the investment owing to the fall in prices.

Farmers were forced to migrate to big cities in search of job.

The Union and State governments should implement programmes to encourage the youth to involve in agriculture widely, they added.

The protgesters seekaction against unauthorised weighbridges. Later, they submitted a memorandum addressed to Chief Minister Siddaramaiah to the Deputy Commissioner.

#### Help sheep farmers get better prices, corporation told

N. Dharam Singh, former MP, inaugurated the office of the Assistant Director of the Karnataka Sheep and Wool Development Corporation here on Sunday. He said the corporation should not just concentrate on increasing productivity in the animal, but also help sheep farmers get better prices.

Panditrao Chidri, Chairman of the corporation, was present.

#### Menace of middlemen

Talking to presspersons on Saturday, Mr. Chidri said sheep and goat rearers were suffering in the hands of middlemen who operate meat markets. "Farmers spend years tending to the animals and care for them by spending several thousand rupees. But the traders buy them at low rates and sell them for high prices. Animals rearers are not getting remunerative prices for their animals." he said.

Mr. Chidri said he would discuss with the Chief Minister the issue of streamlining meat markets and ensuring transparency in sheep and goat trading. "To start with, we can put up computerised weighing scales and enforce the rule that live animals should be sold on their weight and not head count," he said.

#### Welfare schemes

Mr. Chidri said the corporation would introduce welfare programmes for sheep rearers including animal insurance, and health care.

#### Horticulture production sees a silent revolution

Horticulture production in the country has crossed 270 million tonnes, surpassing the total grain production, for the first time in 2013-14, according to N.K. Krishna Kumar, Deputy Director General, Horticulture, Indian Council of Agricultural Research (ICAR). The current total production of grains stood around 260 million tonnes.

The horticulture production in 2012-13 was 269 million tonnes in 2012-13. It was an important milestone in a country where the focus was on grain production. This is a silent revolution, achieved by cultivating on 23,694 million

hectares, which was just 9 per cent of total area under cultivation in the country. Vegetables and fruits constituted about 65 per cent of the total production.

The markets across the country were literally flooded with fruits, Dr. Kumar told reporters here.

There was a possibility of doubling the horticulture production in the next five years.

The ICAR planned to increase the production by 450 million tonnes. The target was easily achievable if the post-harvest loss, which was 20 to 25 per cent, was brought down to about 5 per cent. Besides increasing the area under horticulture, the transformation of modern cultivation techniques could help achieve the target, he noted.

Though it was just one or two per cent of the total horticultural production, floriculture too was expanding by 20 to 25 per cent a year.

The rate of growth of floriculture was much more than that of vegetable and fruits. More and more farmers were investing heavily on floriculture due to the high percentage of profit. It was followed by hybrid vegetables and fruits.

The ICAR was working on bringing the entire sub Himalayan and Northeast regions to take up horticultural crops in a massive way. It was aimed at reducing the import of fruits, almonds, dates and other fruits.

The tropical and temperate climate of the country would certainly facilitate the mission to achieve success, he said.

#### Loan waiver: Hobson's choice for farmers

The farm loan waiver in Andhra Pradesh has turned out to be a proverbial Hobson's choice for farmers.

After six months of long wait, the farmers are not sure whether they are among the chosen few by the banks and the quantum of benefit. Yet, having traversed too far, they are apparently forced to take the choice as there is nothing else left now, according to farmers.

The 52-year-old Bhaskara Rao (name changed) from Tenali preferred not to pay a single pie so far despite repeated reminders from lending bank just to see the burden of social and psychological mounting day by day. "My total loan is little over Rs 1.5 lakh which also includes gold and horticulture accounts. We were strictly asked by the government not to pay, but there was a consistent demand from banks for repayment. With the screening exercise, different lists and eternal postponement of waiver, we are left with no choice but to take what is offered," the farmer said.

While the situation is more or less the same for the farmers from different parts of the State, the banks are stuck in a tricky moment on the list of beneficiaries. "The pressure is mounting from all directions. We are asked to follow several parameters to screen the final list of beneficiaries. One has to wait for the final list which is expected from the main branch in Hyderabad. There are still uncertainties on the whole exercise," said a branch manager under conditions of anonymity.

According to sources, the total loan waiver burden has been brought down from Rs 87,000 crore to Rs 20,000 crore. The total number of eligible farmers' accounts fell by 50 per cent after verification by banks. In the screening process that was followed, the 1.5 crore farmers' accounts have been reduced to 15 lakh family accounts. It was given to understand that the government has arrived at the final figure through linking of Aadhaar cards, ration cards, State Residence Data Hub and revenue records.

Added to the mounting pressure, the official web page (http://apcbsportal.ap.gov.in /loanstatus/) of the government containing the expected list failed to function on Sunday evening.

#### Zero-budget farming to be promoted in Kurnool

Various organisations have joined forces to promote zero-budget farming here on Sunday. International Society for Krishna Consciousness (ISKCON) representative Krishna Chandra Das formally inaugurated the meet while representatives from Indian National Trust for Art, Culture and Heritage

(INTACH), Ankush and Krishi Vignan Kendra decided to promote the concept of low-cost agriculture that would be soft on natural resources and ecology.

The organisers are planning to invite Subhash Padekar, proponent of zero expenditure agriculture using the cow manure, to Kurnool to explain the concept to around 1000 farmers in March next year. One cow could support the agriculture in 30 acres of land and reduce the expenditure drastically.

In the present farming system, there was no security for the producers and also the consumers who were not insulated against price rise.

The new concept is aimed ensuring food security, adequate remuneration for producer and ecological sustainability.

The meeting decided to enrol delegates for the workshop numbering about 1000 from all 54 mandals to be held in March next year.

#### Goof-ups at banks turn windfall for farmers

The goof-ups made by bankers in releasing payments for the paddy stocks procured by Self Help Group (SHG) women at purchase centres reportedly have turned out to be a windfall for many farmers.

The District Manager, Civil Supplies, has a bank account in the main branch of the State Bank of India in the city with fund reserves to facilitate payments to farmers immediately after the procurement of their produce.

'The bank personnel transfer cash from that account to that of the growers through either the real time gross settlement (RTGS) or national electronic fund transfer (NEFT) modes.

However, some personnel from the SBI are said to have withdrawn, by mistake, cash payments twice of the actual price of procured grain from the account of the DM, Civil Supplies and transferred the same in favour of some farmers.

After realizing this, the bank authorities went into a tizzy on how to recover the excess amounts from the farmers' account. Inquiries revealed that many instances of double payments were reported in different places in the district.

In Pothavaram, an upland village in the district, at least six farmers were said to have got payments of nearly Rs 6 lakh, including the excess of the actual receipts in their accounts. The authorities of Indian Bank at Pothavaram succeeded in recovery of excess payments after receipt of a request from his SBI counterparts.

The personnel the Central Bank of India by then reportedly disbursed payments in favour of two farmers. Alerted with the SBI officials, they kept the payment to one farmer under suspension.

A farmer from Vanguru from Pedavegi mandal volunteered to return the excess amount to a bank in the city. SBI Main Branch Assistant General Manager S.V. Suryanarayana said that he was not aware of the goof-ups, while Vasantakumar, District Manager, Civil Supplies, admitted that such errors had been noticed at one or two places. Efforts were on for the recoveries, he added.

#### Portal on farmers' loan status details

The beneficiaries of the crop loan debt redemption scheme could obtain online the details of their loan status by logging in to a portal created by Andhra Pradesh Government. The farmers' families covered by the first phase could get the loan status details by furnishing information like Aadhar card, Ration card and Loan no by logging in tohttp://apcbsportal.ap.gov.in/loanstatus.

#### 'Instruct leaders to pay dues to farmers'

State Sugarcane Growers Association general secretary Tejasvi Patel has demanded that the State presidents of the Congress, JD(S) and the BJP should prove their concerns for farmers by instructing the leaders of their parties who own sugar factories to pay dues to growers.

Addressing reporters here on Sunday, he said that instead of staging protests in the Assembly and walking out of the session to make news, the parties should issue clear instructions. "The leaders owning sugar factories are more afraid of their party high commands than the government, as they are worried about their political career," he added. Mr. Patel said that the government had

failed to follow the orders of the court and in north Karnataka the sugar factories had decided not to crush sugarcane for the rates given by the government.

#### Bovine breeding gets Centre's leg-up

The five major bull mother farms maintained by the Kerala Livestock Development Board (KLDB) at Mattupetty, Kulathupuzha, Dhoni, Kolahalamedu, and Puthoor will soon be part of a national-level programme aimed at genetic improvement of livestock to boost milk production.

The KLDB has bagged a Rs.49-crore assistance from the Centre under the National Project for Bovine Breeding (NPBB). The scheme focusses on strengthening the cattle breeding programmes in the State. It also includes a mission programme for conservation and proliferation of indigenous bovine breeds.

KLDB Managing Director Jose James said the NPBB would help Kerala to take up an organised breeding programme through artificial insemination using high-quality genetic material. The basic objective, he explained, was to enhance domestic milk production, surmounting the constraints of a limited cattle population and dwindling resources.

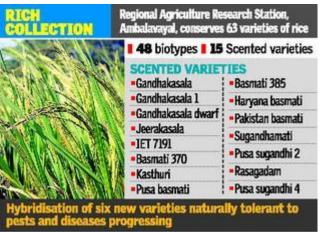
Trends show that the annual milk production in Kerala would have to be increased from 27.92 lakh tonnes in 2012-13 to 35.8 lakh tonnes over the next 10 years. Anticipating a decline in crossbred milch animal population by around 10 per cent, the average productivity of crossbred animals would have to be enhanced from the current 9.02 litres a day, the second highest in the country, to 12 or 13 litres a day to meet the projected demand.

"The fact that Kerala has a high average daily production of crossbred cattle despite the meagre fodder resources in the State corroborates the breeding programme we have adopted.

But to increase the average productivity to 13 litres a day, a growth rate of 3.7 per cent will be required," says Dr. James. The KLDB is gearing up to arrange quality artificial insemination services at the farmer's doorstep.

The project outlay for Kerala will be spent on purchase of high-yielding bull mothers, renovation of artificial insemination centres and cow sheds. The funds will also be utilised to strengthen biosecurity measures, install biogas plants and create disease-free zones around farms. Also on the cards is a project to install a solar or wind energy generating system at the Kulathupuzha farm.

RARS rice germ plasm collection a treasure trove



The rice germ plasm collection at the Ambalavayal Regional Agriculture Research Station (RARS), under Kerala Agriculture University, in Wayanad has come in handy for farm scientists and progressive farmers. The station has been conserving 63 varieties of rice for the past 45 years. Fifteen are scented varieties, including indigenous breeds of Wayanad such as Jeerakasala and Gandhakasala. There are five variants of basmati too.

Long-duration varieties such as Chennellu, Veliyan, Thondi, Chomaala, Palthondy, Peruvaayal, and Valichoori and short-duration breeds such as Njavara, Thonnooram Thondi, and Japan violet are in the collection.

"Tall plants such as Gandhakasala, Jeerakasala, and Njavara have a tendency to lodge after flowering, which causes huge loss to farmers. We could tackle this by developing dwarf varieties of the indigenous aromatic rice by utilising our gene bank," P. Rajendran, Associate Director of Research, RARS, said.

The station has also released hybrid varieties such as Ambalavayal-1, Ambalavayal-2, and Deepthi suited for the district.

"Hybridisation works of six new varieties naturally tolerant to pests and diseases are progressing. Conservation of ideal rice biotypes are the need of the hour in order to provide climate resilience for the Wayanad ecosystem as only local varieties can withstand adverse climatic conditions," Dr. Rajendran said. "Though we have been conserving the germ plasm for many decades, we are in search of more indigenous varieties from native gene pools, especially from the tribal farmers," he added.

#### Mangaluru embracing organic products



The Swavalambi Santhe, a monthly shandy day being organised in Mangaluru, appears to have caught on as a concept with people buying organic products — vegetables in particular, in good measure.

The sellers who are part of the venture, told *The Hindu* on Sunday that many people had already booked their products in advance over the phone. The latest Santhe was held at Vedam Ayu Ayurveda Hospital, Pandeshwara. It is held at a different location each time.

#### Tastier items

"I had brought some 20 kg of ribbed gourd. It is sold out," said Ramanna K. of Kaniyoor in Belthangady taluk at 2 p.m. He and Narasimha Mayya of Bantwal

taluk say shandy days are here to stay. Though growers were few, the demand had been rising, said Mr. Mayya, who, along with his friends, run an exclusive outlet at B.C. Road for organically grown products.

People were realising that organic products were tastier and healthier despite being costlier, the two growers observed. Mr. Mayya and his friends grow organic products in two farms five acres each in size.

Mr. Mayya's wife, Jyothi Mayya, said the red spinach (leafy vegetable) grown on her farm was in high demand. Initially she told buyers that it was good for curry but people now tell her how they could make tasty sambar, chutney and other items from it. "It is usually sold out in the first half hour," she said.

The growers have been coming to fortnightly shandy days organised on P.M. Road Road which too has contributed to the increasingly popularity of organic products.

#### From the Herbarium

The products from the government-funded Arboretum at Pilikula Biological Park, is the latest addition to the shandy. You could try mango-ginger (curcuma amda) or Indian Pennywort locally known as Ondelaga (centella asiatica) and Pulav Ele or Lemon Grass from its stall. And the products are affordable. For Rs. 10 you could about 200 grams of mango-ginger.

The next monthly Santhe will be held at 'Swami Kripa' Kadi Kambala on January 4.

At Swavalambi Santhe, you could buy a variety of pickles, jaggery, jaggery powder, jowar rotis, bamboo rice, some medicinal plants, but a typical onion at the stall of Narasimha Mayya that sold at Rs. 30 a kg was in the limelight. Called naati eeruli (local onion), it looked somewhat like garlic. They were sent to Mr. Mayya by organic farmer Sanganagouda Patil of Mudhol in Bangalkot district. A middle-aged woman sought to buy it thinking it was garlic but was surprised when told it was an onion. Another attraction was rice produced by manually beating paddy, using a long wooden pestle (onake in Kannada) and mortar.

#### Initiative to promote millet cultivation



To revive cost-effective and hassle-free millet cultivation across the Eastern Ghats and help identify, conserve, and develop the coastal region as one of the rich biodiversity corridors, a two-day workshop on millets will be held in Visakhapatnam on December 13 and 14.

Millet Network of India (MINI), Hyderabad, is organising it for the first time in the city partnering with Andhra University, Sarada Valley Development Samithi, and Sabala, a civil society organisation.

The regional-level conference aims at bringing about change in farming culture, apart from advocating the ancient art of millet-based culinary skills.

Inclusion of millets in the Public Distribution System and mid-day meal scheme, promotion of millet cropping system among the farming community, and challenges involved in producing and marketing the coarse grains will be discussed during the conference.

"The objective is to promote millet food tradition across all levels. But the task before us is to figure out ways to make this education as absorbing as possible, and help people drive home the message of long-term benefits of including power-packed millets in the diet," says Spurgeon Raj, coordinator of MINI.

Farmers, journalists, anganwadi workers, nutritionists, and experts from various departments would participate in the conference. Paper presentation,

case studies, PowerPoint presentation, and an organic food exhibition will form a part of the programme.

"There is a need for a paradigm shift in agriculture and food consumption to arrest malnutrition. Millets like finger millet (ragi), foxtail millet (korra), and little millet (saama) are rich in minerals, proteins, fibre, and vitamins, and play a role in boosting our immune system and can replace rice and wheat in our diet," says K. Saraswathi, executive secretary of Sabala.

NGO representatives and farmers from Visakhapatnam, Vizianagaram, and Srikakulam districts are expected to take part in the two-day workshop to be held at AU Economics Department from 10.30 a.m. to 6 p.m.

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#### Flyash helps improve crop yield, says Agriculture Scientist

Many believe that flyash generated from thermal power plants is hazardous to human health and ecology, however, an extensive study conducted by C.V. Patil, eminent agriculture scientist and retired director of education, University of Agriculture Sciences, Raichur (UASR) refutes these believes.

On the contrary, his research have proved that the flyash improves crop yield, acts as pest control and helps in retaining/improving soil fertility.

In his over two decades of research, Dr. Patil who is also former member of Karnataka Krishi Mission, has conducted numerous field trials and presented several papers in various premiere institutions of the country where he is shown how the flyash comes as boon for the farmers.

Stating that the country is producing around 265 million tonnes of flyash every year, of which, on 55 per cent had been used for various purposes. "In that, mere 2 per cent of flyash is being used in India in agriculture despite having its great potential", he said.

Claiming that the chemical components of flyash are quite similar to that of the soil, Dr. Patil said that flyash could well be used as 'second generation soil' in agriculture for higher yield and improving soil fertility.

On the field trial, he said that during his research, he conducted the test using flyash on different soils, different crops, irrigated and dry land.

"Surprisingly, each trail gave encouraging results as the presence of flyash increased the output by more than double because it has chemical components that is needed by the crops and the special caricaturist of flyash of capturing moisture for longer time than the soil. Because of the lower density, the flyash helps in easier germination of plants", Mr. Patil said.

Dr. Patil said that with the mixture of 30 tonnes of flyash in each hectare land, the yield of groundnut has increased by 109 per cent, sunflower by 22 per cent, maize by 32 per cent and paddy by 34 per cent.

On the apprehensions raised by some people that the foodgrains cultivated using flyash contains toxic elements, Dr. Patil said that National Institute of Nutrition, Hyderabad has proved that flyash cultivated foodgrains have no toxic elements. "In fact, they proved that that such grains have more nutritional values than normal one", he said.

Dr. Patil however regretted that despite having these advantages of the flyash, lack of awareness among the farmers is giving room for spreading of false information.

And those farmers who are aware of the importance, do not wish to use flyash in their farmers due to transportation cost.

"I believe that if the government holds awareness programme, at the same time provide subsidy on transport, them farmers will come forward to make use of the flyash. It will also dispel misconception about the flyash", Dr. Patil said.

#### Protective nets prove fatal for birds

Tackling the ever growing monkey menace in Adilabad, the district to which Forest and Environment Minister Jogu Ramanna belongs, has strangely turned calamitous for birds which essentially depend upon food crops for survival. Stranger still is the fact that neither the Forest nor the Panchayat Raj department have woken up to this issue which can eventually spell disaster for the avian world.

Increasing number of dead birds can be seen dangling from the fishing nets, for example at Lingatla in Neredigonda mandal, which have been put up around perimeters of agriculture fields to scare off monkeys.

Farmers in the monkey-infested hilly areas in Neredigonda, Nirmal, Sarangapur, Jannaram, Kadem and Khanapur mandals had hit upon the seemingly novel idea of erecting nets around their fields as monkeys stayed away apparently fearing getting stuck.

Birds attack food crops, especially jowar and maize which have been sown in about 5,000 hectares this season. Birds face disaster during the period between late October and January when the nets are erected to protect the fields.

The population of simians rose steadily when large groups were released in newer areas in the forests. These monkeys, in due course take to pillaging standing crops thereby causing economic loss to farmers besides extreme mental agony.

"Controlling monkeys is the lookout of respective gram panchayats. The gram panchayats should sterilise the simians," points out Adilabad Chief Conservator of Forest T.P. Thimma Reddy.

"The fund-strapped local bodies have their own limitations. The Forest Department cannot shirk the responsibility as it is that department which books a case in the event of an animal in the wild, including a monkey being

killed," counters the District Panchayat Officer K. Pochaiah. The Nirmal Municipality, which faces perhaps the worst situation in so far as monkey is concerned, has brought in a few langurs which are taken around localities to scare the simians. The latter however, return to torment citizens once the langurs are moved to some other locality.

#### Growers get tips on mango farming

Adopting a novel way to boost mango yield and its export, growers of Srinivaspura taluk in Kolar district are being trained in management of mango farms, including plucking of fruits, by scientists from the University of Horticultural Sciences (UHS), Bagalkot.

"During the last few months, we have been giving training to 150 mango growers on management of mango farms. Lack of knowledge about farming is a major bottleneck in both yield and export of mango," said an official of the UHS.

Growers are trained in planting saplings, management of farms, harvesting crop, packaging and exporting of the fruit. Through intensive training, farmers will be taught lessons in pruning trees, harvesting, packing, transporting and marketing, the official said.

Training needs to be given to farmers as mango fruits are plucked before they ripen. They are then artificially ripened using calcium carbide to impart colour. The yield is low on quality and taste, the official said.

At one round of training, growers were told to upgrade their skills and adopt market-driven farm techniques to improve yield.

Agricultural and Processed Food Products Export Development Authority has been offering financial aid to growers, Minister for Horticulture Shyamanur Shivashankarappa told presspersons here on Friday.

The Agricultural Produce Marketing Committee yard at Srinivasapura had launched web-based e-tendering in the mango market about a year ago.



#### Fertiliser industry demands decontrol

The Fertiliser Association of India, a non-profit body, has urged the government to decontrol the fertiliser sector and bring urea under nutrient-based subsidy to discourage excess use of it.

#### Speed up reforms

The FAI has urged the government that reforms process in the fertiliser sector should be taken forward on an urgent basis. It was brought to the government notice that import duty on raw materials should be lower compared to finished products.

However, in the fertiliser sector the duty on most of the imported raw materials is same as that of finished products. This goes against the basic premise of encouraging domestic production, said SS Nandurdikar, Chairman, FAI.

"The government should act as a regulator and facilitate investment in building production capacities in the country. The present government has also stated in unequivocal terms that there is an excess usage of urea, leading to wastage of Rs. 8,500 crore during 2013-14," he said.

It has been observed there is under allocation of funds for domestic urea production and over allocation for imported urea.

#### Supplementary grants

Additional allocation of Rs. 30,000 crore through supplementary grants should be made by the government to clear the back log and make provision for payment of bills up to February 2015.

The industry is struggling to comply with the procedure for receiving subsidy. It has been made so complex that subsidy bills are pending since December 2012 and freight bills since 2008-09, said FAI.

There is a need for accountability so that huge losses incurred by financing cost for the borrowings to fund subsidy receivables are minimised.

Also, there is a need for provision of paying interest on delayed payment of subsidy beyond stipulated time period, Nandurdikar said.

Under the fertiliser pricing policy implemented in 2008, the existing urea plants are not able to operate in full capacity as the government extends subsidy only to a specified limit. The cost of production of urea produced beyond the cut off limit is so high that it will not be profitable if sold at market price.

Decision to revise the policy was ignored by the Department of Fertilisers in spite of intense discussion for the last one year under the previous government. This has resulted in loss of urea production, which will be made up by imports, he said.

#### Sunflower prices to remain stable

Farmers have been advised to take their own sowing decision, as the prices of sunflower during harvest would remain stable and hover around Rs. 3,300 to Rs. 3,500 per quintal in February next.

Sunflower is raised in two seasons — Karthigai pattam (Oct-Nov) and Chittirai Pattam (April-May) in Tamil Nadu and major hybrid grown was Sunbred variety, which fetched high price due to high oil content.

Current price of sunflower seeds is around Rs. 3,200 a quintal in Vellakoil Regulated market and to facilitate farmers in taking the sowing decision, Agro Marketing Intelligence and Business Promotion Centre (AMI & BPC) in Tamil Nadu Agricultural University analyzed the prices data of sunflower seed prevailing there for the last 13 years.

The analysis revealed that the price will hover around Rs. 3,300-3,500 a quintal during harvest of February, 2015, a release said.

The total sunflower cultivation area in India in 2013-14 was reduced to 2.50 lakh hectare compared with last five years average of 7.43 lakh hectare.

According to first Advance Estimates, sunflower seed production in Kharif (2014-15) is said to be 1.29 lakh tonnes.

The demand for sunflower oil in India has increased in recent years due to growing health consciousness and high income level and sunflower oil consumption in South India is around 70 per cent and production is only five per cent.

Karur, Tiruchirapalli, Dindigul, Tuticorin, Dharmapuri, Namakkal and Tiruppur districts are the major producers of sunflower seeds in Tamil Nadu accounting for 79 per cent of area and 80 per cent of total sunflower production in the state.

The productivity of sunflower in Tamil Nadu is 1.81 tonnes per hectare, which is higher than the national average of 0.64 tonnes per hectare.

#### Foodgrain yields set to drop in 13 districts: study

Adaptation to climate change needs to be distinguished from adaptation to current climate variability in Karnataka, said Bangalore Climate Change Initiative - Karnataka (BCCI-K).

"Adaptation takes the form of adjustments to physical, ecological, and social systems to reduce their vulnerability or to enhance their resilience to current climate risks as well as future climate change," revealed a study 'Green Growth Strategy for Karnataka' by BCCI-K.

BCCI-K's assessment on the impact of climate change on five key crops of Karnataka, based on Infocrop modelling, showed that yields of rice is set to drop along with maize, sorghum, red gram and ragi in 13, 9, 12, 7 and 8 districts respectively, out of 27 districts, by the 2030s.

Also, major rice-growing districts like Mandya, Belagavi, Ballari, the coastal districts, and Shivmogga are expected to witness rice productivity lowered by one per cent to 18 per cent.

In the case of sorghum, the corresponding figures for Haveri and Raichur are 6 per cent to 10 per cent. The red gram yields will be lower by 10 per cent to 38 per cent and those of ragi by 10 per cent to 20 per cent in six districts.

The 'Green Growth Strategy for Karnataka' report was prepared by a consortium of institutions led by BCCI-K, including IISc, UAS, ISEC, Integrated

Natural Resource Management, CSTEP and London School of Economics and Political Science (LSE).

#### Corrective measures

"In this scenario, the State should take necessary steps to address, urgently and holistically, concerns related to the adverse impacts of climate change on agriculture by improving the natural resource base (soil and water), diversifying cropping systems, adapting the farming-systems approach, strengthening the extension system, and improving risk management through early-warning systems, crop insurance, and institutional support," said BK Chandrashekar, former minister who chaired BCCI-K in its report preparation. The report also suggested that a range of adaptive strategies need to be considered. Like changing cropping calendars and cropping patters to include

those varieties of crop that can perform better despite the variable climate are the immediate and the best option.

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#### Recommendations

Also, development of crop varieties tolerant to drought, high/low temperature, and pests – varieties that may be better adapted to future climatic conditions – by using genetic resources should be initiated immediately.

Chandrashekar said, "Recommendations that emerge from different scenarios of the impact of climate change include changing the cropping pattern, promoting drought-resistant crop varieties, shifting to perennial horticulture and agro forestry, and changing cropping practices."

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# **Business Standard**

#### PM Modi looks to Bihar for future of farming



From his sleepy village in Bihar, Ram Narain arrives at Gulab Bagh market to sell a truckload of <u>corn</u> that will fetch him enough money to buy a motorbike for his son, school uniforms for his daughter and a gift for his wife.

Narain and legions of farmers in the state have more than doubled corn output in just five years by adopting hybrid seeds and good farm practices, a rare success story Prime Minister <a href="Narendra Modi">Narendra Modi</a> wants to replicate in other states. He came to power six months ago by promising faster farm and economic growth.

Traders such as Cargill Inc, Glencore International AG and Louis Dreyfus Commodities BV have set up operations in Purnia, an administrative outpost that now buzzes with trading activity.

"Corn has come as a boon ... helping our children attend good schools and improving our living standards," Narain, 42, said, lending a hand to labourers unloading sacks at the mandi, or wholesale market.

Bihar had an initial advantage as corn is grown year-round to meet local food demand, making it a natural place for traders to seek supplies when demand began to rise. Other states were largely growing corn for animal feed.

The arrival of global traders and the establishment of a market for the crop gave small farmers the confidence to invest in higher-yielding hybrids.

Rising output encouraged banks, a commodity exchange and commodity collateral management companies to move in, opening up Bihar to regional and international trade.

"We acted as a catalyst by establishing a linkage between the market and farmers," B K Anand, chief of the grains and oilseeds division of Cargill India, told Reuters.

Local farmers say they now produce 7-8 tonne a hectare, a figure confirmed by Cargill's own research which shows Bihar's yields catching up with the 10 tonne achieved in the United States, the world's top producer.

India's average corn yield is just 2 tonne.

#### HIGHER YIELDS

Urbanisation and industrialisation are limiting available agricultural land. Increasing yields addresses the issue and cuts the relative cost of inputs like fertilisers.

India produces 23-24 million tonne of corn, with Bihar accounting for nearly 3 million tonne, according to trade and industry estimates. If other big producing states fail to match Bihar's gains, rising consumption would cut into Indian exports that now average 3.4-4.5 million tonne a year.

With the advent of top-name traders competing for stocks, farmers are now making Rs 12 (\$0.19) per kg against Rs 2-3 a few years ago, said Narain, who now grows corn on 2 hectares, up from less than a hectare 5 years ago.

Traders look to buy from local farmers living in the Gulab Bagh area because they can export to neighbouring Nepal and Bangladesh by road. The region is also close to six major ports on the east coast, including Kolkata.

"The daily corn arrival in the Gulab Bagh mandi is around 5,000 tonne a day against 2,000 tonne five years ago," reckons Chandan Daga, owner of wholesale trader Arihant Agri.

An assured market encouraged farmers to embrace hybrid seeds by companies such as DuPont Pioneer and they have kept pace with the latest varieties. GMO, or genetically modified, food crops are banned in India.

"Being sturdy and taller, the plants are not prone to rat infestation and damage after hailstorms," farmer Vinod Yadav said of his P3522 variety of seeds, looking at mounds of corn cobs in his back yard.

The government says it hopes to extend Bihar's success in boosting yields and to other leading corn growing states such as Karnataka, Andhra Pradesh and Maharashtra.

"We are consulting concerned ministries like <u>agriculture</u> and government research bodies to see how this model can be replicated in other corn growing parts of the country," Food Minister Ram Vilas Paswan told Reuters.

Buoyed by the sharp rise in physical trade, India's leading commodity exchange NCDEX last year launched a new contract setting Bihar's Gulab Bagh as a delivery centre. The new futures contract gives farmers an idea about the outlook for prices.

"Bihar reveals that by providing a market for farm goods and by allowing trade to determine its own course, we can write a success story even without any active government help," said Amit Sachdev, India representative of the US Grains Council.



Brigade B'lore : GOSF 2014



The decision to disallow experimentation in genetically modified (GM) crops by various states is questionable. However, it reportedly got a fillip from the T.S.R. Subramanian Committee report to review environment-related laws. Subramanian apparently contended that European countries also don't allow field trials of GM crops. The report is, indeed, a useful document. It makes a plea, for example, for a new set of policies for compensatory afforestation. It does not, however, discuss the issue of GM crops, or the research on them. So if Subramanian did say something on the issue, it should be seen as a side comment rather than the committee's view.

It is true that the US and China are bullish on GM crops. Europe was strictly against them. But the Lisbon Protocol was a step towards a more nuanced formulation. India has been in the middle. Its legislation on producers' rights and environmental clearance by the empowered committee on a case-by-case basis is unique. These legislative formulations of the mid-1990s were based on expert committees, including one led by M.S. Swaminathan. But in a fast-developing field, frequent reviews are needed. Even the European position now is different from what it was then. But until further review, the existing legislation stands.

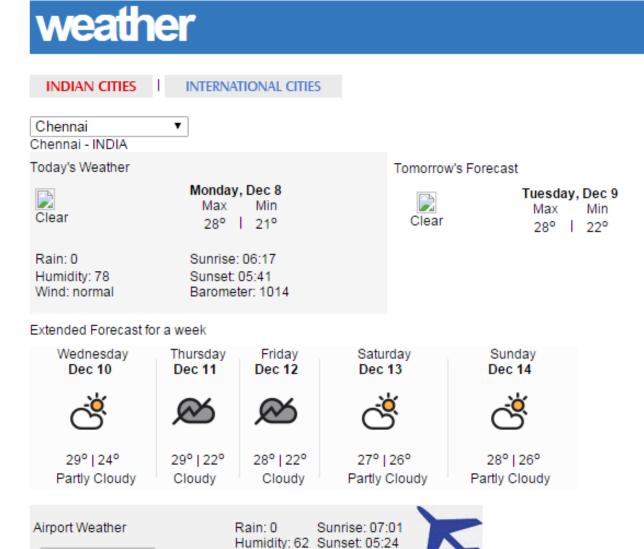
GM cotton was the target of various Gandhian and obscurantist lobbies in the 1990s. The movement against Navbharat Seeds is a good example. Sanat Mehta argued, and I supported him, that the cost of this would be high for farmers in western India and Andhra Pradesh. We created a system in which millions of farmers were criminals and the most preferred seeds were sold illegally. Navbharat seeds were sold at Rs 450 per kg; the Monsanto variety at a premium price of Rs 1,250. Legal systems that were created as safety controls were used to look into productivity, cost and other commercial issues. But isn't the market supposed to conduct economic tests?

There was also no thought about the relationships between user groups (coops, farmers groups etc), small technology companies (India's strong suit) and multinationals. It is another matter that later, agreements between local seed

producers and MNCs were fortunately allowed. After that, we became a major factor in the global cotton trade. Indeed, cotton has powered the growth of Gujarat's agriculture in the last decade. Another major experiment, which had a bearing on the food security of the poorest, took place in Gujarat. The Adivasi areas of Panchmahals, Banaskantha and Sabarkantha have the highest levels of nutritional deficiency in the state. Studies by the Indira Gandhi Institute of Development Research show that poverty in these areas is as high as in the Bimaru states, despite government claims to the contrary. GM seeds have

made a huge difference to maize production, a staple of the Adivasis. The average yields in the region were around 1.5 quintal per hectare. Small farmers would regularly starve. GM maize was originally developed by Monsanto but a field study by N.M. Sadguru Water and Development Foundation, Dahod, showed that, funded by the state government, the Gujarat Agricultural University had also done good work in the area and their GM variant had a higher yield compared to the MNC one. Some extraordinary civil servants started Project Sunshine — Adivasi farmers were encouraged to use GM seeds produced by Gujarat Agricultural University scientists and private companies. NGOs like the Vivekananda Trust and the N.M. Sadguru Foundation participated in the process. These facts are well known to senior political leaders from the state, particularly those who have a farming background. Yet, an aggressive NGO was able to put a stick in the wheel. The maize success story has been repeated in north Bihar, where it is grown both as a food staple and poultry feed. A major crop group that needs a big yield push in India is pulses. The average yield is around one tonne per hectare. Our agricultural universities have developed seeds that could produce 1.5 tonne per hectare. But BT seeds aim to do around 2.5 tonne per hectare. The Indian Council of Agricultural Research has considerable expertise in this area. But its scientists get terribly disillusioned when they get negative signals from the establishment. There are new technologies, using which a seeddevelopment process that used to take seven to eight years can be completed in less than four. Improving the yield of pulses to two tonne per hectare is essential to overcome the nutrition and food-inflation barrier. When all these facts are mentioned, obscurantists bring up some exceptional cases of traditional varieties. But this is a non sequitur. Let's talk about the average farmer under average conditions. Grains like rice and wheat do not cause food inflation. Pulses, vegetables, fruit and milk do. If an anti-technology and anti-science mindset spreads, we will have to pay for it dearly. -

### hindustantimes



Wind: normal Barometer: 1016

Delhi

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## STRENGTHEN FARMERS TO MAKE COUNTRY MORE POWERFUL: BRIJMOHAN AGRAWAL

Country will strengthen if farmers are strengthened and hence a concrete action plan should be prepared in the interest of farmers. Traditional farming should be replaced by modern farming which is the need of hour, said Agriculture Minister Brijmohan Agrawal at the concluding ceremony of National Agriculture Exhibition Agro Vision 2014 organized at Nagpur on Sunday.

Agrawal said that along with modern farming techniques, the farmers should also go for cash crops to secure their future. He said that large amount of guava is being exported from Chhattisgarh. Agrawal emphasized on utility of micro irrigation and said that the Central government should increase the subsidy on sprinkler.

He advocated for organic farming as the entire world is adopting it. However, organic farming will succeed only when animal husbandry is increased. Agrawal also appealed to the farmers to use solar pumps. He said that micro irrigation facilities should be increased by increasing the subsidy and by preparing an attractive action plan. He said that Chhattisgarh government has launched a number of schemes including Agriculture Farm Equipment Service Centre for unemployed agriculture engineers.

The project cost is about Rs 25 lakh and the government will provide grant of Rs 10 lakh. The government has plans to establish 300 Agriculture Farm Equipment Service Centres. Union Minister Nitin Gadkari appreciated the agriculture development in Chhattisgarh under the guidance of Agrawal.

AGRI MIN EXPRESSES CONCERN OVER YOUTH'S DISINTEREST IN AGRICULTURE

State Agriculture Minister Harak Singh Rawat said that at a time when the nation is achieving progress in agriculture development, the youth of the nation are getting farther from agriculture, which is a cause for concern.

Speaking at a review meeting in the GB Pant University of Agriculture and Technology (GBPUAT) College of Agriculture Management, the Minister said that there is need for encouraging the youth to work in the agriculture sector.

The GBPUAT can play an important role in facilitating this. "The desired integrated development of the State and nation will be possible only when educated youth consider themselves obliged to work in the agriculture sector," said Rawat.

The Minister further said that a full time vice chancellor be appointed in the university by the start of the new year. The university vice chancellor Professor HS Dhami informed the Minister about the various aspects of research and academic activities going on in the university.

The university registrar J Kumar spoke about the achievements of the university. The Uttarakhand Seeds and Terai Development Corporation managing director PS Bisht and various lecturers, scientists and officials of the university were also present on the occasion.