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# THE HINDU

## **Grey mildew disease management in cotton**

Grey mildew is an important fungal disease, which has been affecting cotton yield in India.

The disease increased by 10-30 per cent this year when compared to the prevalence in last four years.

It has become a major disease and needs effective control during early days only. Low temperature and humidity prevailing during the winter season also contribute to the disease intensity.

### **Symptoms**

Initial infection appears as triangular, square or irregularly circular whitish spots of 3 to 4 mm size on leaves.

As the disease severity increases, the smaller spots merge together and form bigger spots.

The disease usually first appears on the lower canopy of older leaves when bolls set.

Profuse sporulation gives them a white mildew like appearance.

Irregular or angular translucent spots (areola) are formed by the veins of leaves. Disease severity is more spread in upper leaves, flowers and bolls.

Leaves become yellow, turn to brown colour. Severe intensity of grey mildew disease leads to leaf curling and eventually the defoliation of green leaves and both surfaces of the leaves get uniformly covered by white powdery growth of the fungus.

High humidity, low temperature help in the spread of this disease.

This pathogen survives mainly on plant debris and volunteer plants.

### **Control measures**

— First foliar spray of 3 gm wettable sulphur per one litre of water in the initial stages of the disease to be done.

— Dusting of 8-10 kg of Sulphur powder effectively controls the disease.

— Also about one gram of Carbendazim or Benomyl per litre of water is effective.

— If the disease intensity is more, new fungicides like one litre Hexaconazole or 300 gm Nativo-75 WG per hectare is required to control the grey mildew disease.

— Deep ploughing, rotation crops like cereals, growing regional tolerant varieties, are recommended.

— Crop residues should be removed and burnt.

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### **‘Ready plans to improve milk production’**

Collector Siddharth Jain has instructed the Animal Husbandry Department officials to ensure that there is no shortage of fodder, water and feed for cattle in the district in the coming summer.

Inaugurating a session “Make Chittoor Milk District” at the training centre of the Animal Husbandry wing here on Wednesday, he observed that the dairy sector had more takers than agriculture in the district, in view of the depleting water sources and shortage of rainfall last year.

“Farmers are mostly dependent on dairy sector now. The officials must gear up to treat milk production as a vibrant industry, and initiate steps to maintain the production during summer season,” Mr. Jain said. The Collector sought the field level staff to initiate measures for improving the per day milk collection from 22 lakh litres (at present) to 40 lakh litres as part of the ongoing four-year plan to achieve the target.

## **Awareness drive**

He insisted on organising massive awareness drives for dairy farmers, in addition to providing fodder on subsidy.

He also instructed the staff to extend timely advice to farmers on cattle feed management, besides coordination with women groups and private dairies in the district.

## **Pure gingelly oil for Rs. 290 a litre**



A farm women group in Sivagiri producing pure gingelly oil with support from the Agriculture Department has started attracting health-conscious customers.

The Amma Farm Women Group in Kodumudi block consisting of educated women has gained expertise in manufacturing and bottling gingelly oil, and selling the same with reasonable profit for Rs. 290 a litre.

Though modest, a promising beginning has been made. The pure product has ready buyers in the backdrop of adulterated oil bought for cheaper costs causing very many ailments, Agriculture Department officials say.

The Amma Farm Women Group uses expensive palmyra jaggery for processing gingelly seeds whereas large-scale production units use the cheaply available sugarcane molasses.

Also, there have been apprehensions about branded oil being adulterated with palm oil and/or mineral oil, officials said.

The venture by the farm women group would be supported through hand-holding support.

Bank loan would be made available for the group for purchasing an oil expeller. At present, the group hires the machine.

The group was finding it possible to make a reasonable profit after adopting healthy manufacturing practices. Promotion of gingelly oil production as a cottage industry in Kodumudi area where the crop was being cultivated in large areas would help in reversing migration of workers from villages to urban parts.

The group would be supported with bank loans and facilitated to transform into a model. Gingelly oil production would be promoted in a similar way at the level of every village, Joint Director of Agriculture M. Selvaraj said.

### **Panel in favour of tweaking MNREGA**

*'Farmers should be paid for working on their own field'*

The Karnataka Agriculture Prices Commission is in favour of tweaking the Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) to pay farmers who work on their own fields.

“I think we have reached a stage where the State government should amend the Act to make it possible for farmers to get paid for working on their own field,” T.N. Prakash Kammaradi, chairman of the commission, told presspersons here on Wednesday.

“It will address the issue of labour scarcity and help farmers create permanent assets on their fields,” he said. He will send a request to the State government to change the Act and hoped it will be forwarded to the Union government.

### **Recommendations**

The commission, that was formed six months ago, has sent two interim reports to the State government with various recommendations. He will send another set of recommendations soon.

It will include putting in place an automatic system of market interventions by which the government will buy grains or other farm produce, whenever the prices fall in the open market. It will also recommend hiking the revolving fund to Rs. 5,000 crore, he said.

### **Homestead farming in focus**

The significance of promoting homestead farming in the State to attain self sufficiency in vegetable production has been stressed at a seminar on 'New trends in vegetable cultivation' that concluded at the Regional Agriculture Research Station (RARS) here on Wednesday.

Speaking after inaugurating the programme, T.R. Gopalakrishnan, Director of Research, Kerala Agricultural University (KAU), said attaining self sufficiency in vegetable production was a challenge to the State and it could be addressed only by promoting homestead farming in each house.

“Realising the necessity to produce safe-to-eat vegetables, Keralites should take up homestead farming earnestly”, Dr. Gopalakrishnan said.

“Vegetable cultivation in backyards, terraces, and poly houses have become popular. Identification and popularisation of appropriate varieties and adaptable technologies is very important”, he said. Dr. Gopalakrishnan said self sufficiency in vegetable production would not be a distant dream, if the varieties and technologies developed by the KAU were used properly. T. Pradeep Kumar, Associate Professor, Department of Olericulture, College of Horticulture, Vellanikkara, delineated the modern approach in vegetable farming.

### **Asia-Pacific coconut community meet from Feb. 2**

Union Minister for Agriculture, Radha Mohan Singh, will inaugurate the 51st Asia Pacific Coconut Community (APCC) session at Hotel Crowne Plaza here on February 2. The meeting will review the global coconut situation and hold deliberations on specific issues in the sector. It will evolve appropriate policy decisions with a view to making inroads into the development of trade in coconut and coconut products between the member countries, a press release issued by the Coconut Development Board said.

The APCC is an intergovernmental organisation under the aegis of the United Nations Economic and Social Commission for Asia and the Pacific

(UN-ESCAP). The organisation has 18 coconut-producing member countries. The APCC member countries account for 90 per cent of the world's coconut production and export of coconut products, the release said.

### **Experts seek measures to conserve Vembanad backwaters**



K.G. Padmakumar, former associate director (Research), Kerala Agricultural University, speaking at the Summit on Hydrology and Ecology of Alappuzha at the Kerala Science Congress on Wednesday. —Photo: By special arrangement

: Concerned by the large-scale exploitation that the Vembanad lake was being subjected to, experts from various fields have sought effective measures to preserve the Ramsar site by evolving a support system.

Several recommendations were raised at the ‘Summit on Hydrology and Ecology of Alappuzha’ organised as part of the 27<sup>th</sup> Kerala Science Congress here on Wednesday.

Presiding over the session, E.J. James, former executive director of the Centre for Water Resources Department (CWRDM), lamented that there has not been any scientific proposal for the management of the lake, since 2002 when the water body was included as one among the three Ramsar sites in the State.

He held the view that the Vembanad backwater system and the Alappuzha district must be viewed as a single ecosystem. “A study conducted by the CWRDM had revealed the presence of large quantities of fluoride in the lake. It has also been proved that bacterial contamination in water was

highest in the region. A holistic approach was required to preserve the wetland and sustain the source of livelihood of a large number of families residing in the region,” he said.

K.G. Padmakumar, former associate director of research of the Kerala Agricultural University, said that the decimation of mangroves in the name of tourism has been disastrous for the ecology of the region. “Immediate steps must be undertaken to plant mangrove trees along the estuarine belt, which later must be extended to the beaches.” He also stressed on the need for water harvesting structures in Kuttanad to ensure unhindered drinking water supply to the residents.

Speaking on the occasion, K.C. Venugopal, MP, reminded scientists to uphold the social concept in their research works. Sea-erosion was a common phenomenon in the coastal areas for which the scientific community has been unable to find a permanent solution, he pointed out.

Elaborating on the study that had been conducted by IIT-Madras on salinity distributions in Vemabanad a few years ago, K.P. Sudheer, a professor at the department of Civil Engineering of the premier institution, called for an integrated approach that brought together scientists, social scientists, policy-makers, industry experts and practitioners related to agriculture and related fields. A combined effort was required in mitigating the negative impacts of human activities and in improving the sustainability of the lake.

E. Sreekumar, scientist, Rajiv Gandhi Centre for Biotechnology, pointed out that the district was prone to certain emerging infectious diseases such as Japanese encephalitis and West Nile fever as the region was water-logged and was a regular spot for migratory birds.

## **KSPCB elicits stakeholders' views on climate change**

*Suggestions to be added to Karnataka State Action Plan on Climate Change*



Shankar Sharma, consultant and coordinator, KSPCB, speaking at a meet in Mysuru on Wednesday.— PHOTO: ANURAG BASAVARAJ

With climate change emerging as a serious environmental challenge, the Karnataka State Pollution Control Board (KSPCB) brought stakeholders on a common platform here on Wednesday to draw out their propositions on alleviating the phenomenon and adding the same to the Karnataka State Action Plan on Climate Change (KSAPCC) for deriving at a “people-centric” and “inclusive” policy.

Over a hundred participants attended the consultation meet at the Institution of Engineers here.

The KSPCB plans to hold similar consultations with stakeholders in 11 other cities where its regional offices are located, in the coming days.

KSPCB Member Secretary Vijay Kumar, who inaugurated the meet, urged the participants to offer their valuable suggestions for the action plan. Stakeholders had been requested to submit their perspectives on topics such as water and nature; solid waste management; air quality; transport; industries; energy; agriculture and horticulture; forest and bio-diversity, and urbanisation.

Energy expert Shankar Sharma, who was appointed by the KSPCB as the consultant and coordinator for the exercise, said the views aired at the session would be piled up and presented to the government for appropriate action.



“Adapting to this phenomenon and mitigating the effects of climate change is our focus,” he said.

According to KSPCB, Karnataka has many serious issues to contend with on climate change.

About 77 per cent of the total geographical area is officially identified as arid or semi-arid; and drought is a threat to reckon with as two thirds of the State receives less than 750 mm rainfall per annum.

### **Training in natural edible dye**

As part of the National Agriculture Development Programme, a funded-project on “Popularisation of Annatto (*Bixa orellana*) in Tamil Nadu for Natural Edible Dye”, training programme was organised at Agricultural College and Research Institute in Killikulam on Wednesday.

According to a statement, the objective of programme is to popularise Annatto, as a source of edible dye (colouring agent) in the State.

The seeds of the plant contain Bixin - the source of edible dye. R. Babu, Professor and Head, Department of Agronomy welcomed the gathering.

### **Importance**

#### **explained**

V. Subramanian, Dean, ACRI, in his inaugural address explained the importance of edible dye in food industry, origin of Bixa, use of various dye in the human life over the years and the need for adoption of natural dye plant for extensive cultivation in Tamil Nadu.

K. Kumaran, Professor, Forestry and Principal Investigator of the scheme, explained the species, its importance and uses.

The details of establishing nursery, planting and management techniques, harvesting, processing and value addition in Annatto were explained with demonstration.

While C. Sekhar, Professor (Agricultural Economics), explained the value addition and details of Annatto cultivation, P. Kumar, Assistant Professor (Forestry) spoke on the seed management techniques, nursery and planting techniques of the species. Hundred farmers, who attended, were taken to the Annatto nursery and demonstrations were given for practical exposure. Feedback and interactive session was organised before distributing the certificates by the Dean.

S. Mallusamy, Leader of farmers' association, Tuticorin, Abdul, Subbiah and other progressive farmers, expressed their views. Dr. Kumaran proposed a vote of thanks.

### **Rebound for Monarch butterflies**



Monarch butterflies perch on a twig at the Piedra Herrada sanctuary, near Valle del Bravo, Mexico. File photo: AP

*The numbers of the famous species are up from the last count*

The troubled monarch butterfly, whose winter migration is one of the most remarkable of any species, rebounded this year, raising hopes for the brilliant orange and black insect, according to the yearly count.

Some 56.5 million monarchs are gathered in Mexico for the winter after their amazing trek across the United States, scientists with World Wildlife Fund Mexico estimate.

That's a good deal more butterflies than last winter, when 34 million were counted in Mexico's Sierra Madre, the lowest number recorded since 1993 when entomologists began keeping records.

A much smaller population winters in California, which saw an estimated 235,000 monarchs, a 50 percent decline compared to the 18-year average, according to scientists.

Tierra Curry, a senior scientist with the conservation group Center for Biological Diversity, said the modest population rebound of the Mexico group is welcome news, but nothing to get aflutter about. It is, after all, the second lowest population count ever.

"The monarch must reach a much larger population size to be able to bounce back from ups and downs," Curry said. "This much-loved butterfly still needs Endangered Species Act protection to ensure that it's around for future generations."

The U.S. Fish and Wildlife Service announced in December that it would conduct a one-year review to determine whether the butterfly warrants listing under the Endangered Species Act. The Center for Biological Diversity, Center for Food Safety, the nonprofit Xerces Society and entomologist and monarch butterfly expert Lincoln Brower filed a petition last year asking the service to list the insect.

The Mexico population is famous because the butterflies form a blanket over the trees, turning whole sections of forest into a kaleidoscope of butterflies, with so many that the sound of their wings flapping can be heard, according to researchers. This group also serves as a barometer for the species.

Overall, Mexico's winter monarch population has declined 82 per cent from its 20-year average, according to the World Wildlife Fund, which counts the number of hectares of trees covered by the winged creatures to come up with an estimated number. The numbers are 95 per cent lower than the high point of 1.05 billion in the mid-1990s. Entomologists blame the plummeting population on logging in Mexico, climate change and the mass destruction of the milkweed plant along its migration route in the United States.

The dramatic decline has gotten the attention of lepidopterists across North America, who fear for the future of the largest insect migration in the world. Mexico is the winter destination of the vast majority of the colorful

butterflies, which travel thousands of miles from southern Canada and the United States each year to escape the cold.

### **Tenuous future**

Monarch numbers were actually expected to increase more dramatically than they did this year as a result of favourable weather conditions in breeding areas in the U.S. and Canada last spring and summer.

Conservationists "remain very concerned about the monarch's still very tenuous future," said Sarina Jepsen, the Xerces Society's endangered species director. "In the past 20 years it is estimated that these once common, iconic orange and black butterflies may have lost more than 165 million acres of habitat -- an area about the size of Texas."

The monarch, one of the largest butterflies in the world, is found throughout North America. Over the years it has expanded its range around the globe, including to Hawaii, New Zealand and Australia.

It is extremely susceptible to changes in habitat, weather or toxins in the environment. Conservationists say a single storm in 2002 killed an estimated 500 million monarchs, more than eight times the size of the current population.

Recent studies have blamed the decline on urban sprawl and a lack of milkweed and other nectar-bearing flowers along the migratory route through the Midwest.

Scientists say corn and soybean crops have been genetically modified to be resistant to herbicides, particularly Roundup, which is a Monsanto trademark.

The result is that Midwest farmers can blanket large areas with the herbicide, killing off much more milkweed.— New York Times News Service

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### **Farmers' body demands better irrigation facility**

Members of the district wing of the Bharatiya Kisan Sangam took out a procession in support of their eight-point charter of demands. They marched from the Chinnappa Poonga and to the Collectorate raising slogans demanding improvement to irrigational infrastructure in the district.

They demanded expeditious execution of Thondaiman irrigation channel from the barrage in Mayanur in the Tiruchi district for assured supply of water to irrigate crops being cultivated in Pudukottai district. They also wanted waiver of farm loans in the wake of the failure of northeast monsoon in the district. The farmers demanded that the procurement price of sugarcane be fixed at Rs. 4,000 a tonne and urged private sugar mills to pay the arrear dues.

### **Reaping rich with horticulture seedlings**



Tomato seedlings raised under shade net at Kannappadi village in Alathur taluk in Perambalur district.

Farmers of the district are now keen on selling horticulture seedlings as it's turning out to be a profitable venture.

Subsidy for erecting shade nets, provided under the National Horticulture Mission, has helped farmers raise nurseries of various vegetables. About Rs.3 lakh, nearly fifty per cent, is offered as subsidy for erecting shade nets on 1,000 sq. metres which costs Rs. 6 lakh. Chandrasekar of Kannappadi village in Alathur taluk has raised vegetable seedlings on 2,000 sq. metre under shade net. “Seedlings register robust growth as they are raised under controlled atmosphere and climatic conditions under shade net. Many farmers and women for raising domestic garden purchase seedlings from me,” he said.

He has raised one lakh chilli, brinjal, tomato, and cauliflower seedlings in his shade net . “I have already sold 50,000 seedlings. As demand is good, I’ve now stocked one lakh seedlings. I sell chilli seedling for 80 paise, tomato seedling for 70 paise, brinjal –conventional variety for Re.1 and hybrid variety for 70 paise – and cauliflower (hybrid variety himaya) for 70 paise per seedling. Expenditure for raising a seedling is 60 paise. I get 10 to 30 paise as profit per seedling,” Chandrasekar said. “I received Rs. 6 lakh subsidy for my shade net as the total cost was Rs.12 lakh. I also teach farmers on harnessing latest technologies, including drip irrigation,” he said. Gunasekaran, another farmer of Pommanapadi village in Alathur taluk, has raised pumpkin creeper on 1,000 sq. mt under shade net.

Officials said that under the National Horticulture Mission, horticulture crops are raised in the district to achieve the target of raising fruits, vegetables, flowers on 330 hectares in the district at a cost of Rs. 54.64 lakh.

### **Reduce discharge from dam: farmers**

A large number of farmers of Cumbum valley, including ayacutdars of 17 channels, took out a rally and blocked Theni-Kumuli highway in front of the PWD office here on Wednesday.

They condemned heavy discharge from Periyar dam and called for bringing it down so that the storage could be used to meet irrigation and drinking water needs till March-end.

The farmers said the storage stood only at 1,170 cusecs. At least 960 mcft of water was needed to protect the standing crop. Reducing the discharge to 300 cusecs would help maintain the supply till March-end. But 800 to 1,000 cusecs were being discharged.

Revenue and PWD officials assured them that the discharge would be brought down after February 5. But representatives of the farmers' associations demanded immediate reduction in discharge.

They said the PWD officials did not keep their promises on previous occasions. But the officials maintained that the government had to take decision on discharge.

Karungattankulam Farmers' Association president K. Vijaya Rajan said a huge quantum of discharge would lead to shortage of irrigation water.

O.R. Narayanan, secretary, Cumbum Valley Farmers' Association, said a meeting with the PWD Chief Engineer would be convened in Madurai on Thursday. If the outcome of the meeting was not satisfactory, they would stage a protest again, he said.

### **Declare Adilabad drought-hit, say farmers**

Farmers in Adilabad are demanding declaration of drought in the district in view of the failure of last kharif season. Declaration of drought would help farmers get input subsidy as the Union government sanctions a major part of the requirement, according to Telangana Rashtra Samiti State secretary and farmer leader B. Goverdhan Reddy.

Citing example of Maharashtra government declaring drought in the neighbouring districts of Yavatmal, Chandrapur and Gadchiroli where crops were lost due to similar deficiency in rainfall, Mr. Reddy told *The Hindu* on Wednesday that Maharashtra has sanctioned Rs.5,000 crore towards drought relief and input subsidy in the three districts. The agrarian community on both sides of the inter-State border has not witnessed such crisis since the last three decades, he added.

The TRS party in Adilabad had submitted a representation to the Collector on October 25 demanding declaration of drought based on the over 50 per cent deficiency of rainfall . However, the government has not yet responded.

### **'Global warming needs a radical approach'**

Maj. Gen. Sudhir G. Vombatkere (retd.), a social activist, felt that a radical problem like global warming needs a radical approach as the core of the problem is not being given a serious thought.

Speaking at the stakeholders' consultation meet, Mr. Vombatkere argued that the plan being worked out for addressing the effects of climate change was "faulty" as the main focus of the strategies should be on factors contributing to climate change and not on development.

"High economic growth leads to high consumption of fuel which emits greenhouse gases. That is, more fuel consumption results in more global warming."

Instead of bringing effective strategies on tackling the effects of climate change, the leaders of the world are busy in blame-game over carbon emissions. "We have to plan now for our future generations so that the consequences are largely eased since global warming is a slow process and its effects cannot be seen. The world leaders must lead the way in the right direction on the issue," he opined.

Farm policies need modification, promotion of food crops and organic farming, efficiency in water use before rivers become seasonal instead of perennial, he suggested.

Chandra Prakash, president, Mysore Grahakara Parishat, stressed on encouraging public transport and expressed concern over the tremendous rise in private transport.

### **Diversified farming ensures sustainable income**



Special Arrangement



**HIGHLIGHT:** Several inward sloping terraces have been constructed in the farm to conserve water.

The farm of a young farmer, Mr. Joji P. Daniel, in Chittarickal village, West Eleri panchayat in Kasaragod district of Kerala is like a school for enthusiastic young farmers and agricultural students since they get exposed to a range of intense and diversified farming activities.

His family owns about 9.5 acres and in four acres coconut trees (250 trees), 150 coconut seedlings, 150 nutmeg grafts, 200 banana plants and 400 tuber crops like elephant foot yam, colocasia and tapioca are grown.

### **Regular income**

In another two acres about 800 arecanut trees are grown with cocoa and pepper as intercrops. About 450 rubber trees are planted in another three acres which ensures a regular income.

In the remaining 50 cents of land he cultivates different types of vegetables such as bitter gourd, cabbage, cauliflower, vegetable cowpea, tomato, chilli, amaranthus and little gourd.

Besides being used for household consumption, the vegetables are sold on alternate days for about four months in a year.

The farmer regularly attends farmers' meetings at the Central Plantation and Crops Research Institute (CPCRI) Kasaragod to get acquainted with latest technologies for sustainable farming.

He promptly follows good agricultural practices like crop rotation, incorporation of leguminous plants for improving soil fertility, organic recycling of farm waste, mulching etc. In the coconut based integrated farming system, he maintains two cows and one heifer, poultry birds and also freshwater fishes like Tilapia and Carp varieties.

Fodder grass variety, Co-3 is cultivated in the interspaces of coconut gardens to reduce the cost of animal feed. Around 15 stingless bee colonies established in the farm ensures enhanced pollination of crops and nutritional security.

### **Common practice**

“The highlight of his farm is that adequate soil and water conservation measures are adopted throughout the farm with around 300 rain pits and inward sloping terraces. Coconut husk burial is a common practice adopted in trenches made between rows of coconut palms for moisture retention,” says Dr. George V.Thomas, Director of the Institute.

Due to proper adoption of soil and water conservation measures, the coconut yield has increased from around 90 nuts to 130 nuts per tree in a year. He has constructed three farm ponds of 15 lakh litre storage capacity and a

roof top water harvesting structure of 10, 000 litre capacity.

During peak summer there is no shortage of water in his farm whereas the neighbouring areas are hit by drought as prolonged dry spells are generally experienced in the district.

### **Waste recycled**

In his farm all crop residues are recycled to highly valued vermicompost. A biogas plant is also set up for fuel and slurry for manure purpose.

“His technique of grafting nutmeg plants after attaining sufficient growth was found to be highly successful. Generally more than 50 per cent of plants raised from nutmeg seeds are male plants.

“Grafting was done on such plants, which proved to be fast growing and started yielding from 2-3 years after planting. In fifth year of planting the average production is 200-300 fruits per plant with an average yield of 2 kg mace per plant,” explains Dr.T.S. Manoj Kumar Programme Coordinator.

The farmer is not only known for his passion, devotion and dedication towards farming but also for his innovative ideas for getting maximum returns of more than 10 lakh annually from his farm.

During heavy rainfall, bud rot disease is a major problem in coconut palms in the district. During 2008-2009, disease spread was very severe.

Mr. Joji, on behalf of a coconut cluster club formed by his group took necessary action for timely intervention in about 30 hectares guided by CPCRI specialists.

### **Several awards**

He is the recipient of several awards like Karshaka Sree, block level best coconut farmer award, best coconut farmer award by CPCRI and Regional agricultural research station, Pilicode and is also the first recipient of the Karshaka Mithra award announced by the Government of Kerala in 2014.

“It is time for the farming community to move towards safe farming by way of maximum utilization of organic inputs and minimal or zero usage of chemical inputs. But it is the responsibility of the authorities to ensure proper branding and fair price for such safe products,” he says.

For further details please contact Mr. Joji P.Daniel, Pullancheri House, Paramba Post, Parappa (Via), Kattamkavala, Kasaragod Mobile:09447880525 and Dr.T.S. Manoj Kumar Programme Coordinator, Chowki, Kudlu Post Office, Kasaragod, Kerala 671 124 email: cpcrikvk1@yahoo.com, Mob:09400334940 Phone:04994 232993.

### **MFL launches neem-coated urea**

After the recent removal of restriction on production of neem-coated urea, Madras Fertilizers Ltd. (MFL), on Monday, commenced the sale of it. A company official said compared with normal urea, the

neem-coated urea was costlier by five per cent. But, it offered several benefits to farmers. MFL is targeting to produce 20,000 tonnes of neem-coated urea for the

next two months. — Special Correspondent

### **Two paddy procurement centres opened**

Farmers of Ekkatampalayam, Pasuvapatti and Ellaigramam are overjoyed as two Direct Procurement Centres for paddy have been started within 2km.

One was commissioned at Veppili Pirivu along the Kangayam Road as demanded by a group of farmers through a novel protest on Wednesday, and the other at nearby Nallapadi, at the perceived insistence of a local ruling party functionary.

The farmers staged a protest by carrying loads of paddy to the Collectorate complaining that Chennimalai AIADMK block secretary P. Gopalakrishnan

was causing obstruction with the idea of getting the procurement centre sanctioned for the area at a place of his choice.

The district administration chose to fulfil the desires of both sides.

Both the centres were inaugurated by N.S.N. Nataraj, MLA.

With the start of the two new centres, the number of procurement centres in the district has risen to 25, said C. Muruganandam, Regional Manager, Tamil Nadu Civil Supplies Corporation.

Till last year, farmers in Chennimalai had to take their produce to K.G. Valasu, more than 7km away, bearing additional expenditure on account of transport.

And farmers who chose to dispose off their produce at the fields to private parties faced exploitation since the procurement was made at the rate of Rs. 13 a kg compared to Rs. 14.70 a kg at the procurement centres operated by the Tamil Nadu Civil Supplies Corporation.

The major advantage is that the farmers are paid in cash then and there at the procurement centres.

### **Question Corner: Plucked flower**



Blooming is often preceded or accompanied by an increase in the soluble sugars in the petals. Photo: S. Rambabu

## **How does a flower bloom after plucking it out of the plant?**

POOJA S. KUMAR

*Thiruvananthapuram*

Flowers are the reproductive organs of a flowering plant. Flowering normally occurs when sufficient vegetative growth ( i.e leaves, roots) has taken place to support and feed the reproductive parts.

Flowering is influenced by photoperiod (the time of exposure to sunlight), temperature and humidity. These factors mainly influence the number of pollinators, their concentration and formation of seeds. They also decide the blooming mechanism.

Blooming is often preceded or accompanied by an increase in the soluble sugars in the petals. The receptors present in the leaves, namely phytochromes, will send the signals to direct more nutrients, carbohydrates and water to the petals.

This results in a surge in the osmotic gradient and the cells present in the petals expand on receiving more water. Cell walls get loosened and expand considerably and blooming takes place.

Flowering hormones (Florigens C and T) will rush to the bud in high proportion just before blooming. The flowering hormones include Gibberellic acid, and in some plants ethylene, IAA and cytokinins.

Inhibitors also play an important role in the blooming mechanism. These inhibitors are again controlled by photoperiod, temperature and humidity. It's only when the inhibitor concentration falls below a critical level that buds start developing. So, when all the above conditions are satisfied blooming will happen.

Hence, only the buds that have reached appropriate maturity will bloom after we pluck them because by that time the concentration of sugars, water in their cells, florigens must have reached the required level.

Inhibitor concentration too must have fallen below the critical value. The buds too must have enough reserves of nutrients for blooming even after

plucking. Exogenous application of Gibberillic acid can induce immediate flowering and blooming irrespective of photoperiod.

DR. T. BHAVANI

*Bengaluru*

## *The Indian* **EXPRESS**

**No ripening chamber, mango traders brace for another bad season**



FDA has banned use of calcium carbide to hasten the process of ripening of mangoes.

Ahead of another mango season, the Pune fruit market is staring at a likely loss. Traders and farmers have not forgotten last year's Food and Drug Administration (FDA) raids that destroyed lakhs of mangoes for using calcium carbide to hasten the ripening process. They said a ripening chamber approved by the FDA was not available to them.

FDA had banned calcium carbide that traders used for hastening the process of ripening of mangoes. FDA authorities pointed out that the chemical was detrimental to health. The FDA says consumption of mangoes ripened by using calcium carbide can lead to upset stomach, accumulation of fluids in lungs, ulcers and sores etc. Acetylene, the actual ripening agent produced from calcium carbide, is believed to be carcinogenic. The FDA had thus

banned calcium carbide and launched a massive crackdown across APMCs in the state to destroy mangoes that were ripened using the chemical.

FDA destroyed more than 23,678 kg mangoes, worth more than Rs 11.28 lakh in May last year. In Pune, more than 5 lakh mangoes were destroyed.

Following the FDA crackdown, APMC had set up a temporary ripening chamber near the present flower market at Marketyard. It had a capacity of ripening 35 tonne mangoes. Instead of acetylene, the chamber used ethylene for ripening of mangoes. It was approved by FDA. However, the chamber was destroyed later for expansion of the flower market.

Rohan Ursal, a trader with the Pune market, said that till now no effort has been made by APMC or the director marketing to solve the issue. "Without ripening chamber we are not sure how we will ripen the mangoes. Fear of action by the FDA will prevent traders from buying from farmers as most of us do not have facility to store mangoes," he said.

Mangoes ripening in the natural way would take the same time, usually three months, using ethylene, an organic compound it produces. Artificial ripening using extra ethylene is to speed up the process so that arrival of mangoes in the market can be staggered. Otherwise all of them would arrive around the same time creating a glut, and a loss.

Ursal said that during peak season, APMC Pune sees arrival of 35-45,000 boxes of mangoes mainly from Maharashtra and Karnataka. Last year, the sudden crackdown on carbide ripened mangoes sent prices plummeting by 50 per cent."After Vashi APMC, Pune market has the largest inflow of mangoes and without any ripening chamber this year the mango season would see disruptions," he said.

Dhananjay Dhoipode, chief administrator of APMC, confirmed that the ripening chamber has been destroyed and there is no ripening chamber with the APMC now. "We do not have any plans to get another ripening chamber as of now," he said.

## Express recipe: How to make Smoked Mushroom Galouti Kebabs



Smoked Mushroom Galouti Kebabs

### **Smoked Mushroom Galouti Kebabs**

Are you fond of veg kebabs? Then the recipe for Smoked Mushroom Galouti Kebabs is just perfect for you. Enjoy the smoky flavour to the hilt.

### **Ingredients – Makes 8**

200 gm mushrooms, juice of 1 lemon  
1 medium potato – boiled mashed  
75 gms paneer – grated  
4 tbsp ghee/oil  
1 onion – chopped finely  
1 tbsp finely chopped ginger, 2 green chillies – chopped finely  
½ tsp turmeric (haldi), ½ tsp red chilli powder  
½ tsp salt, or to taste, ½ tsp garam masala  
2” piece for charcoal (take a piece from ironing man)  
1 tbsp chopped coriander leaves

### **For garnish**

Lemon slices, onion rings, mint leaves, chaat masala to sprinkle

### **Method**

\* Boil 3 cups water with 1 tsp salt and juice of lemon. Add mushrooms and boil for 3-4 minutes. Strain. Chop finely. Keep aside.

\* Heat ghee or oil in a kadhai, add onions and saute till brown. Add ginger and green chillies, turmeric and chilli powder. Stir for a few seconds. Add



the mushrooms, mashed potatoes and paneer. Mix well and remove from heat.

\* Add green coriander, salt and garam masala. Mash well with a potato masher or a kadchhi.

\* Place the mixture in a bowl. Place a small steel vessel (katori) in the center of the bowl. Hold the charcoal with a long tongs (chimta) and place it on fire. When it starts burning, place the live charcoal in the katori, pour 1 tsp ghee on the charcoal and immediately cover the bowl. Leave to smoke the mixture for 5

\* Make kebabs of the smoked mixture.

\* Heat a non stick pan or a tawa, grease with ½ tsp oil. Shape the mixture into flattened roundels (kebabs) and cook on medium heat till brown. Garnish with lemon slices, onion rings, mint leaves and sprinkle chaat masala.

## THE TIMES OF INDIA

Fruit flies can smell antioxidants in their food



*Fruit flies can smell healthy antioxidants that protect cells from the harmful influences in their food, finds a study.*

Scientists from the Max Planck Institute for Chemical Ecology in Jena, Germany, and University of Lund, Sweden, found that vinegar flies were able to detect those protective substances by using olfactory cues.

"Odours that are exclusively derived from antioxidants attract flies, increase feeding behaviour and trigger ovi position in female flies," they noted.

Antioxidants are natural food ingredients. Their main task is to neutralise so-called "free radicals" which are produced in the process of oxidation and which are responsible for cell degeneration.

Hydroxycinnamic acids are secondary plant metabolites and important dietary antioxidants. They are found in high amounts in fruit.

Since fruit is the preferred breeding substrate of fruit flies, scientists took a closer look at these substances and their possible effect on the flies. This form of olfactory detection is not only a phenomenon in insects.

"It has also been shown in humans that odours that we perceive as pleasant or appetising are, in fact, derived from important and healthy nutrients, such as essential amino acids, fatty acids and vitamins," explained Marcus Stensmyr from University of Lund.

The scientists will now try to identify further neural pathways involved in the detection of essential nutrients, which ultimately trigger the flies' behaviour.

#### Baker recipes: [Healthy cupcakes](#)



*What is the first image that comes to mind when you think of freshly baked cupcakes? We bet something straight out of the oven, steaming hot, those rough crisp edges, best when paired with a warm cup of hot chocolate milk... But hang on.*

What about the excessive calories you would be consuming with each sinful bite? Feeling guilty already? Fret not. Today we have Namita Arora, owner of the popular bakery - Sin, in Gurgaon, who shares with us two of her favourite lip smacking healthy cupcake recipes. The recipes call for healthy ingredients like bananas and zucchini, both low on calories and both welcome in any healthy eating plan. Bon appetit!

### **Healthy banana muffins**

#### **Nutrients content:**

Calories 178.5  
Calories from Fat 65  
Total Fat 7.2 g  
Saturated Fat 1.1 g  
Cholesterol 31.0 mg  
Sodium 214.9 mg  
Total Carbohydrate 27.1 g  
Dietary Fiber 2.2 g  
Sugars 13.2 g  
Protein 3.5 g

#### **Ingredients:**

100gms brown sugar  
50gms sugar  
100gms curd  
30gms wholemeal flour  
145gms all purpose flour  
100gms oil  
50gms oats  
2 eggs  
1 1/2tsp baking powder  
1tsp vanilla essence  
1/2tsp baking soda  
2pinch salt

#### **Method:**

Line 12 muffin cases. Preheat the oven to 180 degrees  
In a bowl, mix together both sugars, curd and oil  
Then add beaten eggs

Now, add baking powder, soda and salt.  
Add vanilla essence. Fold in the flour.  
Pour into the muffin cases. Bake for 20 min at 180 degrees

### **Zucchini cupcakes**

Nutrients content:

Calories 176kcal

Calories from fat 36gms

Total fat 4.0g

Cholesterol 2mg

Sodium 300mg

Carbohydrates 30.2g

Sugar 5g

Protein 10g

### **Ingredients:**

170gms flour

1tsp baking soda

1tsp staranise

1/2tsp powdered ginger

1/4tsp ground cloves

100gms toasted almonds

50gms raisins

2 large eggs

160gms brown sugar

107gms vegetable oil

220gms grated zucchini

### **Method:**

Line 8 muffin cases. Preheat the oven to 180 degrees.

Mix together flour, baking powder, soda, toasted almonds and all spices

Beat together oil and sugar. Add eggs. Beat till smooth. Add zucchini.

Add flour. Add raisins. Pour into batter.

Bake for 20mins.

## Recipe: Chinese Bhel



*We are savour Chinese food; especially the Chinese bhel that has become a hot favourite among youngsters and has replaced their plates of vada pav and bhel puri is a must learn. Here are two recipes that will help you serve a Chinese platter at home, with a twist.*

### **Ingredients:**

Noodles- 1 cup  
Onion finely chopped- 1 cup  
Shredded cabbage- 1 cup  
Capsicum cut in thin slices- 1/2  
Carrot shredded- 1 cup  
Cornflour- 2 tbsp  
Soy sauce- 1 tbsp  
Red chilli sauce- 1 tbsp  
Ajinomoto- 1 tsp  
Ginger Garlic Paste- 1 tsp  
Black pepper powder- 1 tsp  
salt to taste  
Oil- 2 tbsp  
Tomato sauce- 1 tsp  
Oil to deep fry noodles

### **Method:**

Boil noodles in hot water adding ½ tsp oil to it  
Once it's boiled put it under cold water so that the noodles don't stick to each

other.

Once it cools down dust corn flour over it and mix well & deep fry them.

Take another pan and pour some oil and saute the onion

Add Ginger garlic paste then add Carrot , cabbage & capsicum and turn your gas on high flame.

Now add Ajinomto, salt, black pepper powder, chilli sauce ,tomato sauce and soy sauce

Now mix Fried Noodles and mix well

Garnish with Coriander leaves and green onions (optional) serve immediately

### **Soyabean and Baby corn fried rice**

#### **Ingredients:**

Rice- 2 cups

Oil- 3 tbsp

Soya chunks- 200 gms

Baby corn- About 10 pieces cut in four equals

Beans Finely Chopped- 100 gms

Carrot Finely Chopped- 2

Onion sliced- 1

Cabbage Finely Chopped- 100 gms

Spring Onions Finely Chopped- 2

Green Chillies finely chopped- 2-3

Ginger Chopped Finely- 1 tsp

Garlic Finely Chopped- 1 tsp

Soya Sauce- 2 tbsp

Vinegar (optional)- 2 tbsp

Salt & pepper to taste

#### **Method:**

Wash and soak the soya chunks for a while, and bring them to a slight boil till they become soft, drain them and keep it aside

Cut the baby corns in four equals, and boil them for a while, later shallow fry them and keep aside

Wash and soak the rice in enough water for 10-15 minutes and drain.

Boil water, add rice and little salt.

Cook uncovered on low heat till rice is tender.

Take care not to overcook the rice. Each grain of rice should be separate.  
When rice is done, drain and add some cold water  
Heat oil in a kadhai / large pan  
Saute onion ,then add garlic, ginger and green chillies  
Add and stir fry all the chopped vegetables, along with the soya chunks and baby corn  
Cook for 3-4 minutes.  
Take care that vegetables are not overdone, they should be crisp.  
Mix salt and pepper to taste.  
Add the cooked rice and mix well. Now mix the soya sauce to it.  
Cook for 2-3 minutes and serve hot.  
Garnish with spring onion  
P. S. Non vegetarians can add shredded chicken and scrambled egg

### Tasty carrot soup for winters



*Winters are a great time for having piping hot soup. What's even better is if your soup is loaded with vitamins and delivers a lip-smacking dose of health. And a bowl of hot carrot soup is just what your body needs, since it contains high amounts of Vitamin A, fiber, vitamin K, potassium, folate, manganese, phosphorous, magnesium, vitamin E and zinc. While a raw carrot might not rank high on your palette, you can opt for some easy soup instead.*

### **Ingredients**

About 250 grams carrots, washed, peeled and chopped  
1 medium sized onion  
1 tea spoon olive oil

1 small piece ginger  
2 garlic cloves  
Vegetable stalk  
salt and pepper to taste

### **Method**

Peel and chop the garlic, onions and ginger.

In a pressure cooker, heat 1 tea spoon of olive oil and add garlic, onions and ginger to it. Cook the onions until they turn light brown and add chopped carrots to it and let it sautee for under a minute on medium flame.

Now, add one cup of vegetable stalk or water, and cook until the carrots are tender. You can also close the cooker lid and wait for two whistles.

Take out the soup, cool it and put it in a blender to mince the softened carrots. Strain it and add half a cup water and re heat.

Add salt and pepper to taste and serve it hot.

### [Recipe: Mediterranean pasta soup](#)



*What tastes better than a hot, mediterranean soup in this cold season?*

Preparation and cooking time: 25 minutes



What you need:

2 teaspoons olive oil  
½ cup diced onion  
1½ cups water  
16 ounces chicken broth  
½ teaspoon ground cumin  
¼ teaspoon cinnamon  
¼ teaspoon black pepper  
1 can of boiled and drained chickpeas  
3 diced tomatoes  
½ cup uncooked macaroni pasta  
2 teaspoons chopped parsley

**How to make it:**

Take a deep bottom vessel and heat olive oil in it over medium heat. Add the onion and saute until they become light brown. Add water, chicken broth, cumin, cinnamon, black pepper and drained chickpeas. Add diced tomatoes to the mixture and bring it to boil. Reduce the heat and let it simmer for five minutes. Add pasta and cook until pasta is tender but make sure it is not overcooked. Garnish the soup with parsley and you can serve it with garlic bread.

[Best carbs for weight loss](#)



*Don't completely eliminate carbs from your diet. Here are a few options you can incorporate in your food*

- Fruits are a great source of carbohydrates if you are looking to lose weight. Fruits like pears and apples low on glycemic and have metabolic-boosting pectin in them.
- If you want to provide your body with plenty of fibre, eat a vegetable like sweet potatoes. They are also rich in beta carotene along and other vitamins. Eating them will also keep your stomach full for a longer period and will help you in your workout.
- Your morning oats are carbs that will keep your cholesterol in check and give you a healthier heart. It will give you energy through the day and help in weight loss
- A grain rich in fibre, carbs and proteins, quinoa is healthy as well as delicious. The nutty flavour of this grain is great in texture and hence it can be used in main courses as well as salads and appetizers.

#### Foods that can prevent bad breath



*There can't be anything unpleasant than being taunted about bad breath. Many of us do come across situations where we start talking we realise that our breath still smells like that stale coffee, or tuna sandwich or worse raw onions gone bad. Though one must go for regular dental check-ups, there are certain food items that can prevent bad breath and keep your jaws and teeth healthy.*

**1. Drink more water:** Many of us aren't aware of the fact that drinking enough and at regular intervals can actually prevent one from bad breath. Drinking water at an interval of every hour throughout the day will keep your mouth hydrated, and keeping bacteria at bay. In order for your body to produce bacteria fighting saliva you need enough amount of fluoride-free water in your body.

**2. Cheese and yogurt:** A small piece of cheese can neutralize the dietary acids that are stuck in your mouth after every meal which are responsible for bad breath. So once you are done with a meal, eat a small piece of cheese. A small serving of unsweetened yogurt can also help.

**3. Raw foods:** Apart from dietary reasons and keeping oneself healthy, raw foods can also help in fighting bad breath. Eat raw carrots, celery and apples. Crunchy fruits and vegetables, which are preferably organic, are beneficial in fighting against bad breath. Eating raw and crunchy veggies and fruits can help to scrape out the plaque which are often the reasons for frequent bad breath.

**4. Salt water gargle:** Another easy solution is salt water gargle. Not only does salt water gargle helps in keeping your sore throat at bay, it also helps in eliminating bacteria from your throat and tonsils.

**5. Sugarless candies and gum:** Any snack that increases saliva flow in your mouth, will help in reducing the odour in your mouth. Sugarless candies, gums or even mints are great sources of increasing the saliva flow in the mouth. One can even use the traditional cinnamon, clove or cardamom.

# THE HINDU BusinessLine

**Karnataka shows the way on unified national agri market**

**The platform integrates 51 markets and aims at covering all the 155 main yards**



Owing to changing agricultural marketing environment, establishing a national market for agricultural and horticultural produce is one of the focus areas of the government.

Absence of uniform regulations in States for the Agricultural Produce Marketing Committee (APMC) Act and lack of similar taxation system are considered to be major hurdles in establishing a common market.

Indicating that the popular GST (Goods and Service Tax) will be implemented, the government is set to achieve market integration across the country. GST will play an important role in unifying the markets across the nation.

It is also expected that this will boost trade among States. However, trading in agriculture and horticulture produce could get excluded if States do not come forward to create a facilitating environment..

## **Strategy of Karnataka**

At a time when many States have not been able to reform their APMC Acts, Karnataka has taken initiatives that were not conceptualised even under the model Act. The focus of the Karnataka Government has always been on improving the regulation, enhancing the efficiency of market, promotion of processing, export and facilitating infrastructure for agriculture and horticulture.

The State has also set an example in formulating and practicing one of the best governance systems in agricultural marketing.

### **Major initiatives**

One of the major initiatives taken by Karnataka to implement market reforms in the agricultural marketing sector is establishment of Rashtriya e-Market Services Limited (ReMS), a joint venture of Karnataka Government and NCDEX Spot Exchange Limited.

It was the Agricultural Marketing Reforms Committee 2013, headed by Manoj Rajan, Additional Secretary (Market Reforms), Government of Karnataka, who emphasised the importance of leveraging technology in agricultural marketing system.

Accordingly, with the establishment of ReMS the State has set an example of market integration.

The ReMS claims to offer complete technology and management solution for modernising markets in state and operating the markets at a par with international practices.

The unified market platform has integrated some 51 markets so far. It aims at covering all the 155 main market yards as well as 354 sub-yards.

From the day of its launch (February 22, 2014), 7.5 lakh lots of trading has been done on the platform with 45 lakh bids being made.

## Range of services

Transactions on the platform are worth Rs. 15,000 crore. It has accommodated lakhs of farmers, 31,473 traders and 17,149 commission agents for all the 92 regulated commodities.

The services offered on ReMS are beyond imagination for most of the APMCs in the country. ReMS offers automated auction and post auction process (weighing, invoicing, market fee collection, accounting, payment of sale proceeds directly to farmers), assaying facilities in markets, facilitate warehouse-based sale of produce, facilitate commodity funding to benefit all stakeholders, price dissemination, secondary market development and capacity building for stakeholders.

## Reaping the benefits

Some of the major benefits of the platform are: single licensing system, increased competition, easy and fast trading, better price discovery, etc.

Under this new initiative, traders are allowed to participate in auctioning at all APMCs in the State with a single licence.

Participants such as businessmen, traders, millers, etc. from other States as well are allowed to participate in online auctions.

This has resulted in better price discovery which is determined by considering demand and supply equation not only of Karnataka but also in other States.

The other benefits which are reaped through this unique initiative are increased arrival of commodities (diversion of trade from open market to APMCs), real time monitoring of prices across the State, transparency in operations such as weighing, pricing, billing, etc. and better quality maintenance of the produce.

The platform also facilitates users to track the integrated markets of specific commodities.

For example, an user can access the information about Tur (Arhar) in the markets of Raichur, Gulbarga, Chitradurga and Tumkur online.

In the next phase of its reform, the State is looking forward to establish a system of transfer of money to the accounts of farmers directly.

### **Lesson for other states**

The ReMS is capable of accommodating large number of transactions. Other States can also reform their agricultural marketing framework to become a part of this revolutionary step. In anticipation of implementation of GST, States have to initiate to unify the market which later can be integrated into national market.

The writers are associated with National Institute of Agricultural Marketing, Jaipur. Views are personal.

### **Volume drops at Coonoor tea sale**

Coonoor, January 28:

A volume of 10.74 lakh kg has been catalogued for Sale No: 5 of Coonoor Tea Trade Association auction to be held on Thursday and Friday.

This is the lowest volume so far in 2015. It is as much as 1.53 lakh kg less than last week's offer.

Of this, 7.21 lakh kg belongs to leaf grades and 3.43 lakh kg, dust grade. As much as 9.94 lakh kg belongs to CTC variety and only 80,000 kg, orthodox variety.

In the leaf counter, only 34,000 kg belongs to orthodox while 6.97 lakh kg, CTC. Among the dusts, only 46,000 kg belongs to orthodox while 2.97 lakh kg, CTC.

Among corporate buyers in Leaf market, Hindustan Unilever Ltd (HUL) bought better medium grades. Duncans Tea Ltd showed some interest on good medium broken. Godfrey Phillips India was selective on medium broken and fannings.

In the Dust market, Indcoserve was fairly active on medium smaller grades.

There was fair enquiry from exporters for medium and plainer teas. There was good demand for brighter liquoring teas from upcountry buyers.

### **Turmeric gains colour with quality**

#### **Erode, January 28:**

Prices of the hybrid turmeric increased in Erode markets due to arrivals of fine quality produce. The arrival of new turmeric crop was low.

“On Wednesday, only 100 bags of new crop arrived for sale. We expected more arrival but turmeric growers brought low quantity after processing them. This may be due to expectation of increased price. Further, growers also having adequate stock of old crop with them. If the upcountry demand increases traders will buy more turmeric,” said RKV Ravishankar, President, Erode Turmeric Merchants Association.

Following the arrival of a few bags of superfine quality of hybrid finger turmeric, the price was up Rs. 900 a quintal at Rs. 9,209. Similarly, the hybrid root gained Rs. 200. At the Erode Turmeric Merchants Association sales yard, the finger turmeric was sold at Rs. 5,591-7,789 a quintal; the root variety Rs. 5,199-7,217.

Salem Hybrid: The finger turmeric fetched Rs. 6,370-9,209 and the root variety Rs. 6,574-7,812.

### **Cardamom prices rule steady despite higher arrivals**



#### **Kochi, January 28:**

Cardamom prices ruled steady last week despite higher arrivals following good buying support at auctions.



Trade sources told *BusinessLine* that the rise in the number of auctions from eight to 12 has led to the material being divided among 12 auctioneers. This has not resulted in higher supply.

However, during the week, total arrivals were 552 tonnes against 436 tonnes in the corresponding period a year ago.

As prevailing prices are good, growers are not holding back any stock. They are releasing whatever is harvested and this has kept arrivals higher. At the same time, strong demand is keeping prices firm, they said.

North Indian buyers are active in the market and the trade attributed this trend to good demand in consuming centres. Exporters bought an estimated 50 tonnes last week. PC Punnoose, General Manager, KCPMC, said the continuous active participation of the upcountry dealers gives the impression that the demand continues to be strong. The individual auction average last week was between Rs. 860 and Rs. 980 a kg against Rs. 825 and Rs. 890 the previous week.

On the Wednesday auction, conducted by Vandanmedu Green Cardamom Producer Company Limited, arrivals were 14.5 tonnes and the entire quantity was sold out.

The maximum price was at Rs. 1,180 a kg and the auction average was at Rs. 930.78.

Total arrivals during the season up to January 24 was 12,164 tonnes against 12,999 tonnes in the same period a year ago.

Sales were at 11,936 tonnes against 12,594 tonnes. The individual auction average was Rs. 920 Rs. 570 a year ago.

Prices of graded varieties (Rs./kg): 8mm bold 1,050-1,200; 7-8mm 980-1,000; 6-7mm 850-900; below 6 mm: 750. Medium bulk went for Rs. 850-900 a kg.

### **Seafood sector riding high on vannamei exports**

Shipments to top \$6-million mark this fiscal on overall growth; China's imports drop



Shipments jump Overall exports during April-November in the current fiscal are up 1.09 per cent in terms of quantity

**Kochi, January 28:**

Vannamei shrimp exports are helping the country's seafood sector grow fast, with the segment likely to touch the \$6-billion-mark in the current financial year.

The sector, which crossed \$5 billion last fiscal, is hopeful of reaching this target despite prices ruling sluggish in the export market and a firm rupee, sources in the seafood industry said.

Vannamei cultivation has started yielding results and achieving export target. This has helped the country emerge as the top exporter to the US. Vannamei shrimp farming was introduced in 2009 on a trial basis, as India lagged behind Vietnam and Thailand.

**Robust exports**

Marine Products Export Development Authority (Mpeda) data show that overall exports during April-November in the current fiscal are up 1.09 per cent in terms of quantity, 12 per cent in rupee value and 14 per cent in dollar terms.

Exports increased from \$3,386.42 million to \$3,857.46 million and from 6,60,534 tonnes to 6,67,727 tonnes. The growth is mainly attributed to the increase in exports of frozen shrimp, frozen cuttle fish, live and chilled items.

## **Shrimp contribution**

Shrimp exports registered 18 per cent growth in terms of quantity, 25 per cent in rupee terms and 26 per cent in dollar earnings.

The increase was mainly due to growth in production and export of cultured Vannamei shrimp, which comprises 65 per cent of the total shrimp exports.

Of this, nearly 48 per cent was shipped to the US, Mpeda officials said.

With a target to become a \$10-billion industry by 2020, the sector is pinning its hopes on larger aquaculture crop compared with last year.

Aquaculture shrimps have been the primary contributors to growth contributing a major chunk in total seafood exports in the last fiscal.

Aquaculture has emerged as a world phenomenon, as ocean catches world over are dwindling due to overfishing and swift changes of the ocean environment, sources said.

## **Export markets**

Meanwhile, exports in the first eight months of the current fiscal to Japan, US, European Union, South-East Asia and West Asia registered growth.

The US is the biggest destination with a share of 27 per cent in dollar terms.

However, exports to China have dropped, thereby impacting export of culture shrimps. Weak economic conditions in China have been blamed for the fall.

## Ample seeds for kharif sowing this year: Centre



### **New Delhi, January 28:**

There will be no shortage of seeds for the Kharif season this year, according to statistics released by the Government here on Wednesday.

According to an official statement, an assessment made by Centre and State Agriculture Departments pegged total available seeds at 140.69 lakh quintals while demand is estimated to be approximately 137.27 lakh quintals.

The statement comes after a two-day zonal conference of all State departments held here last week, which served as a review meeting on the availability of seeds and plans for the upcoming Kharif season this year.

States were also requested to adhere to quality and certified seeds to increase productivity.

“All the States were requested to take maximum benefit of Central assistance under ‘submission on seed and planting material’ and send the Annual Action Plan of 2015-16 by mid-March positively,” the statement said, adding that shortage has only been recorded for soyabean.

Kharif sowing begins in May and farmers speed up planting after the South-West monsoon sets in on June 1. Kharif harvest begins in late September lasting till November.

Deficit rainfall affected kharif plantings and output last year with food production projected to be 120 million tonnes – about 10 million tonnes lower than the previous year.

### **TN sanctions Rs. 3.5 cr for start-up warehouse**

Chennai, January 28:

Tamil Nadu has sanctioned Rs. 3.53 crore to establish ‘start-up warehouse’ in Chennai with Nasscom as the knowledge partner, according to a State Government Order.

It will support early stage technology start-ups in Chennai by providing them physical working infrastructure and ancillary support at subsidised cost.

Nasscom will partner with the State government to set up the facility and offer shared office space to entrepreneurs in a plug-and-play format. The 10,000-sq ft warehouse will have 60-80 work stations and 100 per cent power back-up, says the order.

Nasscom will be responsible for end-to-end programme management of the warehouse with the help of a professional team. A ‘start-up warehouse board’ will be appointed with representatives from Nasscom, one Tamil Nadu-based start-up community leader and one or more representatives from the State government.

Electronics Corporation of Tamil Nadu will collaborate with Nasscom to accelerate the commissioning of the first warehouse in the city, the order said.

# Business Standard

Cotton price at multiyear low as demand dries

**The price has fallen by almost 10 per cent in a month, and 23 per cent in four months, since the new crop started hitting the market**

Cotton prices continue to fall, amid higher arrivals of new crop when demand is drying.

On Tuesday, it reached a 42-month low of Rs 8,436 a quintal in the benchmark Shankar-6 variety. In futures trade on the Multi Commodity Exchange, it trades at Rs 14,400 a bale of 170 kg, a slight premium to the spot price. A price below this was earlier registered in July 2011.

The price has fallen by almost 10 per cent in a month and 23 per cent in four months, since the new crop started hitting the market. Viral Shah, senior vice-president at Geofin Comtrade, said: “The pressure of arrivals of the new crop when demand is drying is such that in most major centres, prices are below minimum support levels.” Government-owned Cotton Corporation of India has procured five million bales from various centres. In the past two days, it has begun selling a tiny quantity of the procured cotton in the market.

The crop is estimated at 40 mn bales, in line with last year’s crop. However, export of cotton and yarn have slipped significantly, resulting in lower demand. India’s premium over the US price of 58 cents a pound has come down from the earlier nine cents to two to three. At this price, “export demand from China could emerge, which was dormant for many months”, said an exporter.

Viral believes prices are in the process of bottoming out, as he sees some export demand coming in and believes at this low a level, there could be resistance from farmers to sell.

## FMC set to procure more wheat this season

### The paddy procurement that has been pegged at 30 million tonne which will meet targets

The intense winter this year might benefit [wheat](#) growers, with procurement likely to be scaled up by the Food Corporation of India (FCI). Sources in the corporation said a meeting of state food secretaries had been convened on February 16 to prepare procurement estimates for the 2014-15 kharif season.

The sources confirmed the estimate would be higher than last year's procurement, owing to favourable weather. For 2013-14, procurement stood at 28 million tonnes (mt), against the estimated 31 mt, while sowing was 31.2 million hectares. With no major change expected in sowing this year, the projected higher production is attributed to higher yields.

[Paddy](#) procurement, estimated at 30 mt for the 2014 kharif season, is likely to meet the target. Till January 26, procurement was 26.4 mt, against 27.1 mt in the year-ago period.

## WHEAT PROCUREMENT (million tonnes)



Source: Food Corporation of India

As of January 16, foodgrain stock stood at 36.8 mt (12.8 mt of wheat and 24 mt of rice), against the required strategic reserve of 25 mt as of January 1. Despite a shortfall in paddy production in a few areas due to an insufficient

and late monsoon, an official said, “We should procure at least 29 mt of paddy or more.”

The procurement is on in states of Andhra Pradesh, Telengana, Tamil Nadu and Chattisgarh.

### Govt may take a call on exporting wheat from central pool next month

#### **Officials said the ministry is open to exporting 0.5-1.0 mt of wheat from state-run warehouses**

The Union food ministry is expected to take a final call on whether or not to export [wheat](#) from the central pool after the first week of February, when the situation on domestic sales becomes clearer.

Officials said the ministry was open to exporting 0.5-1.0 million tonnes from state-run warehouses. This is to clear inventories ahead of the new procurement season that starts from April 1 and to take advantage of a benign international market. However, it would like to first ensure the domestic market does not have any more appetite left for wheat. “We are analysing sale in local markets, as there has been a slight pick up in the past few weeks, with traders showing renewed interest. We could also consider the option of exporting wheat if domestic sales do not push up,” a senior food ministry official said.

He said the department will prepare a formal note after the first week of February on this issue. This would be considered by a committee of secretaries, recently constituted by the government.

The committee, comprising secretaries from the departments of food, commerce and finance, was constituted a few weeks earlier to take a quick decision on liquidating foodgrain stocks from the central pool.

These stocks as on January 1 were estimated at 36.85 mt, as against the requirement of 25 mt, almost 47 per cent more.

Of this, wheat were estimated to be 25.1 mt as against the 11.2 mt. Rice were estimated to be 11.7 mt as against a requirement of 13.8 mt. These do not include 16.9 million of unmilled paddy with millers.



The government needs to clear space for the new wheat crop, expected to start arriving from April. Else, much of the existing crop will have to be kept in the open, leading to damage. Wheat output in the 2015 crop season is expected to be around 100 mt, despite a fall in acreage due to favourable weather conditions.

In April 2014, India last exported around 300,000 tonne of wheat from central stocks. Since then it has only been offloading its stocks in the domestic market as international prices were not good.

It had planned to sell around 5 million tonne of wheat in the domestic market in 2014-15, of which just around 2.5 million tonne could be offloaded due to low demand.

Since late December, international wheat prices have risen to around \$280 per tonne before settling at around \$260-265 per tonne because of a proposed export tax by Russia, the world's largest exporter of wheat, and unfavourable weather in some other regions. This has raised hopes that India, which is sitting on a huge stocks of wheat, could restart its exports.

However, despite the favourable international market, private grain traders are of the opinion that high procurement cost and long transportation charges to the ports make the sales uncompetitive for them.

“For the government though, it is different as much of its cost is borne by the exchequer, but here too it will be very difficult for it to export at a loss,” a senior official from a leading international grain trading firm said.