

'Water saving technologies can boost farm output'

Water saving technologies such as drip irrigation will help to improve agriculture yield if proper 'fertigation' (applying fertilizers through irrigation) is followed, said S. Somasundaram, assistant professor (Agronomy), Agriculture Engineering College and Research Institute, Kumulur, a constituent college of Tamil Nadu Agriculture University, said.

Participating in 'Uzhavar Peruvizha' organised at Kappalur village on Tuesday, he emphasised the importance of water saving technologies for sugarcane and vegetables, sprinklers for groundnut and rain gun sprinklers for oilseeds, pulses and sugarcane. He invited Kappalur farmers to visit the irrigation park at Agricultural Engineering College, Kumulur, to have a first hand experience on irrigation automation.

Mr. Somasundaram also said that mechanisation was important for successful farming, and also spoke on variety of equipment introduced by TNAU for the benefit of farmers. "For mechanical sugarcane cultivation, following sustainable sugarcane initiative with wider row spacing and subsurface drip irrigation is important," he said.

Assistant Director of Agriculture Sundaram spoke on the importance of System of Rice Intensification in increasing rice and sugarcane output. J. Jeyaraman, Chairman of Kalasapakkam Panchayat Union, urged the farmers to try out technologies explained in the function.

Farmers sore over getting only 'lip sympathy' from parties

Parties appear to have paid only lip sympathy to farmers, as many of the demands submitted by them have not received from the parties.

The sugarcane cultivators' association submitted a charter of demands to all parties and candidates, highlighting the crisis facing the agricultural sector. They wanted a promise from candidates to fight for their rights.

Kurubur Shanthakumar, president of the association, told *The Hindu* here that farmers had called for the implementation of the recommendations of the M.S. Swaminathan committee report on agriculture, to ensure timely credit flow for farm activities and revival of agriculture.

The report recommended farmer- friendly crop insurance policies, a national security scheme to cover farmers post-retirement, development of market infrastructure and expansion of institutional credit for farmers at a low interest rate, among others.

"This was part of a nearly 20-point agenda or wish list submitted by the association but so far, none of the political parties has agreed to it," Mr. Shanthakumar said.

He added that the sugarcane farmers were in dire straits owing to lack of financial support, crop failure and skyrocketing prices of farm inputs, which made farming economically unviable.

Besides, they had not been paid arrears due to them by sugar factories. The government was also yet to announce sugarcane procurement prices for 2012–13 and 2011–12.

"Neither are political parties interested in raising these issues nor are farmers questioning the candidates and party leaders when they visit the villages during campaigning," he said.

Social security

"A person elected MLA once draws pension all his life, but farmers slog throughout their lives without social security. Hence, we wanted parties to support our demand for extending social security and pension to farmers, but they have chickened out," Mr. Shanthakumar added.

Corpus

Some of their demands require a tweak in government procedures and policies, but none of the parties has displayed the courage to take it up.

A case in point is the demand for a corpus of Rs.10 crore in each district, with a mandate for the district administration to bring about stabilisation in procurement prices of crops during price crash. But parties have maintained a silence on the issue, association member Atahalli Devaraj alleged.

'Alienated'

State Agricultural Workers' Association president Puttamadhu said landless labourers were in the grip of feudal landlords and politicians cultivated them. Issues related to the poor were not addressed and governance had been reduced to an exercise in managing numbers. Parties were alienated from voters, he complained.

Candidates accused of lacking courage to take up farmers' demands

Farmers threaten to launch agitation

Kerala Karshaka Sanghom has threatened to launch agitation against what they called the apathy of the authorities in procuring paddy from the farmers. Addressing a press conference K. Suresh Kurup MLA pointed out that the paddy cultivators of the low lying Kuttanad area were facing an unprecedented situation after the drought, untimely rains and the influx of saline water into the paddy fields.

"However, the government has not come up with any assistance so far", he said. The agencies like Supplyco have not been able to procure the harvested paddy, which has been lying in the open for the past one month in polders like Moolepaadom South and North blocks and Elamkattukadu. The farmers are not sure of who would procure the paddy in polders at Edavattom, Kumbalam Thara and Padinjattukara in Kumarakom panchayat. On the other hand farmers in Aarayiram kaayal and Thollayiram kaayal and Kochupallom Padom, who have completed their harvesting more than a month back, have not received their remuneration so far, Mr Kurup said.

He also pointed out that the paddy cultivation in nearly 5000 acres of polders spread over Aymanam, Aarpookkara, and Neendoor panchayats also have been damaged. The farmers would organise fasting at Thirunakkara soon to register protest. They would waylay the road at Thirunakkara by dumping the harvested paddy on the road on that day, he said.

"Farmers' problems should be addressed"

ADILABAD, April 25, 2013: The TRS on Wednesday demanded that the Chief Minister address farmers' problems in Adilabad during his visit to the district on Thursday. The party wanted him to lift a freeze on the input subsidy money to the tune of Rs. 20 crore meant to be given as compensation to farmers.

Paddy farmers turn to turmeric

They are reaping profits of above Rs. 50,000 per acre



Farmers preparing the turmeric yield for boiling in the field near Kuchipudi village in Krishna district.—Phto: T. Appala Naidu

Tapping the soil fertility, farmers, who shifted from paddy to turmeric cultivation in select areas of Krishna District, are witnessing high yield and unmatched returns.

Cyclone Laila resulted in the decrease in turmeric yield per acre this season — June to April, despite that the farmers are reaping profits of above Rs.50,000 per acre.

The entire input cost ranged between Rs.25,000 and Rs.30,000.

Having better connectivity with Krishna river canal system and blessed with good groundwater levels, good turmeric crop was harvested in Movva, Nidumolu, Poranki, Penamaluru to Patamata areas.

Risky affair

"Paddy crop proved to be a risky affair. One spell of rain in December can spoil the entire standing crop, like what had happened in the last three years. Turmeric sustains many such vagaries of nature," said K. Basavayya of Pedapudi village in Movva mandal.

"Twelve quintals of turmeric we received this year is the minimum yield. It will now fetch above Rs.50,000 profit at the marketing price of Rs.7,000 per quintal. Of late, this is solely an inter crop with maize," Mr. Basavayya told *The Hindu*.

Fearing damage to the turmeric seed or yield, farmers in the district never opt for any mechanised instrument and completely depend on traditional farming for sowing or harvesting operations. Women play a major role in sowing, while post-harvesting is completely dependent on men.

Farmers, who run turmeric boiler in this region, found a way to earn their source of daily income.

"A maximum of 20 trips of turmeric can be boiled in a day, maximum of 120 kgs in every trip at Rs.225 per trip. Around Rs. 4,500 revenue is generated on the boiler during the peak season from April to May," says K. Venkateswara Rao.

Turmeric is sown in July and harvested in April and May.

Hence small, marginal and tenant farmers have traced out a lucrative way to come out of the risk-linked paddy crop to taking up turmeric crop.

Agri-entrepreneurs learn about credit options

25 candidates participate in two-month training camp

The Saraswathi Foundation for Rural Development and Training that hosts the Krishi Vigyan Kendra, Karur, is organising a two-month training camp for potential agri entrepreneurs at the KVK facility at Puzhutheri near here.

Over 25 candidates, who had completed agriculture-oriented courses and selected after a rigorous screening exercise, are participating in the training programme. The schedules, styled Agri Clinic and Agri Business Centre (ACABC) training programme, is supported by the National Institute of Agricultural Extension Management (MANAGE), Hyderabad.

The programme, organised free of cost, help the participants learn more about agri-business management, small business management, general marketing management, agricultural extension services, and detailed project report preparation.

At the end of the programme, each candidate is groomed to prepare a detailed project report for availing credit from commercial banks for setting up the agri-clinic or agribusiness centre. The trainees under this scheme are eligible to get loan between Rs. 5 lakh and Rs. 20 lakh involving a subsidy of 36 per cent to 44 per cent from NABARD.

Inaugurating the training programme on Monday, Lead District Manager S.M. Murugesan detailed the opportunities available to agri graduates. Urging the agriculture graduates to venture into path-breaking endeavours that offered them scope for business profits, Mr. Murugesan called upon the participants to concentrate on market aspects to zero in on the right project.

- Candidates are groomed in presenting detailed project report
- Dairying, poultry, and marketing of flowers are the preferred ventures

Agriculture gets lion's share in annual credit plan

Allocation for crop loans, farm mechanisation in Namakkal

The Annual Credit Plan (ACP) for Namakkal District for the financial year 2013-14 at an outlay of Rs. 2,565 crore that will cover 10,93,364 borrowers in the priority sectors was released by District Collector D. Jagannathan here on Tuesday.

He said that the targeted credit for this year is Rs. 510.1 crore (24.82 per cent) more than the target for 2012-13 that was fixed at Rs. 2,054.9 crore.

Allocation of credit for the agriculture and allied activities sector is Rs. 1,525 crore and is Rs. 403.38 crore (36 per cent) more than the Rs. 1,121.62 crore allotted for the previous financial year.

It includes a total of Rs. 1,340.90 crore for agriculture and Rs. 184.1 crore as advances towards agriculture-allied activities.

In the agriculture sector, Rs. 1,155.10 crore has been allotted for crop loans, Rs. 59.62 crore for farm mechanisation, Rs. 31.98 crore for minor irrigation, Rs. 33.35 crore for plantation and horticulture, Rs. 23.75 crore for land development and Rs. 37.10 crore for all the other agriculture-related loans.

Advances for agriculture-allied activities included Rs. 136.95 crore for poultry, Rs. 30.03 crore for dairy, Rs. 10.57 crore for goat/ sheep

and Rs. 6.55 crore for other allied activities. The allocation of advances for non farm sector is Rs. 440 crore against Rs. 353.44 crore for 2012-13, Rs. 86.56 crore (23.5 per cent) more.

A sum of Rs. 600 crore has been allotted for other priority sectors such as education and housing loans, against Rs. 479.84 crore for 2012-13, an increase by Rs. 120.16 crore (25 per cent).

Of the total outlay of Rs. 2,565 crore, commercial banks shared Rs. 1,832.61 crore (71.45 per cent), followed by cooperative banks Rs. 665.19 crore (26 per cent), Regional Rural Banks (RRB — Pallavan Gram Bank in Namakkal) with Rs. 45.26 crore (1.76 per cent) and Tamil Nadu Industries Investment Credit with Rs. 21.94 crore (0.85 per cent).

Taking into account the various development schemes implemented in the district a sum of Rs. 118.84 crore is allocated for credit oriented government programmes.

The ACP is within the National Bank for Agriculture and Rural Development's (Nabard) Potential Linked Plan (PLP) outlay of Rs. 2,700 crore.

Project Director of the District Rural Development Agency (DRDA) C. Malathy, Project Officer of Mahalir Thittam V.L. Satheesh Kumar, Assistant General Manager of Nabard S. Bhuvarahan and District Lead Bank Manager R. Arivalagan were present when the ACP was released.

Allocation also made for priority sectors like education and housing loans

Appraiser dupes Primary Agriculture Cooperation Credit Society

Police have arrested six persons in this connection

An appraiser attached to a Primary Agriculture Cooperation Credit Society (PACCS) at Naripaiyur in Kadaladi Taluk has defrauded the society to the tune of Rs 30.64 lakh.

He was instrumental in allowing his family members and six proxies to pledge 219 'sovereigns' of fake jewellery and get loans.

With the District Crime Branch police registering a case and arresting six persons in this connection on Wednesday, appraiser P. S. Sakthivel (60), his wife Inbavalli and sons Balamurugan and Sudalaimadan are said to be absconding.

Acting on a complaint lodged by Mr. R. Kannadasan, secretary of the society, the police arrested six palm tree workers, who were used as proxies by the appraiser.

The fraud came to light when the accused borrowers, while responding to a notice, told the society that they would not mind auctioning of the pledged jewellery.

Growing suspicious, the society engaged an appraiser from the Ramanathapuam District Central Cooperative Bank to examine the jewellery and found them fake.

The police identified the accused as R. Arumugam (50), A. Thiruvandi (32), A.Selvaraj (40), P. Anthony Raj (43), T. Raj (27) and R. Velraja (41) from Pachaiapuram, Kannigapuri and Sayalkudi areas.

They were arrested under sections 420, 408 and 120 (b) of the IPC and remanded in judicial custody after being produced before a magistrate court in Mudukalathur on Wednesday.

The police said special teams had been formed to arrest the appraiser and his family members.

The appraiser was living at Kannirajapuram and had recently sold his house, they added.

According to the police, the appraiser had examined the fake jewellery brought by his wife and sons and recommended a loan of about Rs. 10 lakh after vouching for the purity of the gold.

He had also arranged for fake jewellery to enable the six accused to avail themselves of a loan of over Rs. 20 lakh, the police said.

The six accused had taken jewel loans on 11 occasions within a short span of six months from November 2011 to April 2012, the police said.

Except the first accused, all others had availed themselves of jewel loans twice during this period, they added.

Whether Mr Kannadasan had acted hand in glow with the appraiser would be known only after the arrest of the appraiser and his two sons, the police said.

- Appraiser's family and six proxies pledged 219 'sovereigns' of fake jewellery and got loans
- It is said that 75 per cent of the jewellery pledged in PACCS fake

'Invest in dryland agriculture'

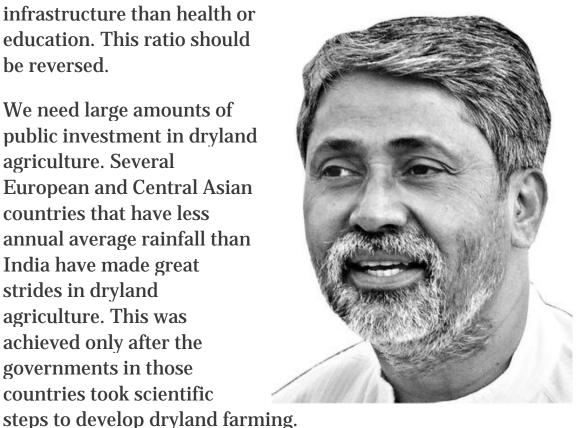
Steps taken by successive governments to redress regional imbalance have failed as they did not focus on three key issues: decentralisation of administration, agriculture reform and human resource development.

The decentralisation that we have is symbolic at best. Urban and rural local bodies do not have functional, financial or administrative autonomy. Their programmes are planned by the Central or State governments, controlled by a few officials sitting in New Delhi or Bangalore and funds routed through the district collectors.

Each gram panchayat needs to be given a discretionary grant of at least Rs. 2 crore per year. These bodies should have their own cadre of officials and should be free to implement programmes designed locally. In most development schemes, more is spent on

infrastructure than health or education. This ratio should be reversed.

We need large amounts of public investment in dryland agriculture. Several **European and Central Asian** countries that have less annual average rainfall than India have made great strides in dryland agriculture. This was achieved only after the governments in those countries took scientific



Chandra Poojary, Department of Development Studies, Kannada University, Hampi

(As told to Rishikesh Bahadur Desai)

Make better use of subsidy on agriculture tools: Collector

'State government encouraging farm mechanisation'

Collector Neetu Prasad on Wednesday advised farmers to avail of the subsidies on agricultural implants, which are being available on a subsidy of 75 per cent. She said that the government, under 'Yantra Lakshmi' scheme, was encouraging farm mechanisation and providing huge subsidies on the machinery through the Agriculture Department.

Addressing the 'Rythu chaitanya yatra' at Karakuduru village near here, Ms. Neetu observed that the agriculture sector was suffering the shortage of the labour and the government too was looking for alternatives to address the problem. She said that using machines instead of the labour would help farmers complete the works at the earliest and at a lower price. "It will further lead to drop in input costs and help farmers improve their margins," she said, adding that the subsidies would be given to the individuals and the groups as well. She said that modern machinery was useful even for the farmers from the delta areas and it was up to farmers to procure the machinery. Underscoring the need for better seed, Ms. Neetu advised farmers to choose the right seed to get more yield. Observing that there was threat from the climate in the form of cyclones and floods during the Kharif season, she said that the crop schedule should be in a way that the transplantation must be completed by the time of cyclones. It was decided to close the irrigation canals on April 25 and reopen them on June 10 and it would be good on the part of farmers to commence the works immediately after the reopening of the canals, the Collector said. Ms. Neetu said that banks would provide crop loans to the tune of Rs.8,000 crore this year and the upper limit on the loan had been increased to Rs. 27,000 per acre for the Kharif and Rs. 30,000 per acre for the Rabi. The target disbursement of loan to tenant farmers for the year was Rs. 100 crore, she said.

Input subsidy

Joint Director of Agriculture D. Prameela said that a sum of Rs. 167 crore was released under input subsidy, which would be credited to the bank accounts of the beneficiaries during the 'Revenue Sadassu' to be held from May 9.

- 'Rythu chaitanya yatra' was held at Karakuduru
- Farmers told to choose the right seed to get more yield

Raw horse gram good for diabetics



Raw horse gram seeds reduce insulin resistance. Photo: K. Ananthan

With dietary practices increasingly linked to lifestyle diseases, here is some news to cheer about for diabetics. Scientists from the Indian

Institute of Chemical Technology have found that unprocessed raw horse gram seeds not only possess anti-hyperglycemic properties but also have qualities which reduce insulin resistance.

The scientists made a comparative analysis between horse gram seeds and their sprouts and found that the seeds would have greater beneficial effects on the health of hyperglycemic individuals. Dr. Ashok Kumar Tiwari, Principal Scientist and lead author of the study said increased consumption of highly processed foods was contributing to spiked levels of blood glucose and lipid levels. He said South Asians consume more carbohydrates, and the introduction of polished white rice has contributed to increased levels of blood sugar among them.

Quoting an earlier study carried out at IICT, he said it was noticed that brown rice or pounded rice was less glycemic than polished rice. He said that persistent hyperglycemia induces oxidative stress which in turn generates free radicals. These free radicals damage bio-molecules leading to imbalance in physiological functions and development of diabetic complications. Describing horse gram (Ulavalu in Telugu, Kulthi in Hindi, Kollu in Tamil) as a poor man's pulse crop in South India, he said it was an anti-oxidant rich food grain. Traditionally different preparations were made with the pulse to suit the requirements of different seasons. For instance, it was given in the winter for generating body heat/warmth and energy.

The authors of the study, which was published recently in *Nutrafoods,* said: traditional medicinal texts describe its use for asthma, bronchitis, leucoderma, urinary discharge, kidney stones and heart disease.

Dr. Tiwari said the study found that raw horse gram seed was rich in polyphenols, flavonoids and proteins, the major anti-oxidants present in fruits and other food materials.

Anti-oxidants help in controlling oxidative stress by scavenging free radicals. He said the study found that raw horse gram seed has the

ability to reduce post-prandial hyperglycemia by slowing down carbohydrate digestion and reduce insulin resistance by inhibiting protein-tyrosine phosphatase 1 beta enzyme.

He said that of late a belief has gained ground that eating sprouts of horse gram would be beneficial for health. However, the study found that during sprouting its anti-diabetic medicinal property gets reduced.

He said the majority of anti-oxidant properties were confined to the seed coat and its removal would not do any good. "Any preparation made of whole grain is better than sprouts or horse gram pulses", he added.

Management tips for controlling mango hoppers

Three species of mango hoppers namely *Idioscopus niveosparsus, Idioscopus clypealis* and *Amirtodus atkinsoni* are serious pests in the entire mango growing regions of India.

They remain active throughout the year but the incidence is severe during the months from February to April.

Infested flowers shrivel, turn brown and ultimately fall off. Besides feeding injury, the hoppers also excrete honey dews on which black mould develops that interferes with photosynthesis and arrests new shoot development.

Poor fruit set

These damages result in weakening of the plants, reduction in fruit set and premature dropping of fruits, leading up to 60 per cent yield loss.

Egg laying starts from February to March. Each female lays around 150 eggs, laid singly by inserting into florets and stalk of the

inflorescence. The eggs hatch in 4 to 7 days. Freshly hatched nymphs are white and gradually turn yellowish-green. They undergo 4-5 moultings in 10-13 days and become adults which are light greenish-brown in colour with black and yellow markings.

There may be 2-3 generations during the blossoming period. Adult hoppers are found all through the year hiding on the bark of the tree.

Management

Avoid close planting and prune dense orchards during winter for better light interception. Keep the orchard clean by regular ploughing and removal of weeds.

Collect and destroy affected inflorescence.

Spray Carbaryl at 2gm/lit, Phosalone 1.5ml/lit, Etofenprox 0.03 per cent, acephate 75 SP at 1gm/lit, or imidacloprid 0.2ml/lit twice in February and March.

The first spray should be given during flower formation stage and the second, two weeks after the first spray.

Wettable sulphur at 2 gm/lit may be sprayed after spraying carbaryl to avoid mite resurgence.

(J. Jayaraj, Prof and R. K. Murali Baskaran Professor and Head, Dept. of Agrl. Entomology, Agricultural College and Research Institute, Madurai 625 104, email: vu2jrj@rediffmail.com, Phone:0452-2422956 Extn.214)

Quality planting material key to better productivity in orchards



Right technique: Workers grafting mango plants.-Photo: C.V.Subrahmanyam.

Any fruit crop is perennial in nature and takes a minimum of three years after planting to bear the first fruits.

"In spite of repeated cautioning, the farmers fail miserably in establishing their orchards due to faulty planting materials. Whenever due care is not taken to procure genuine planting materials, farmers will face a lot of problems in undertaking maintenance operations; thereby they lose their hope and incur heavy loss," says Dr. M. Selvarajan, Professor and Head, Department of fruit crops, Horticultural College and Research Institute, Periyakulam, Tamil Nadu.

It is a big challenge to scientists and extension functionaries to motivate farmers to bestow personal attention in sourcing genuine quality planting materials.

Sudden drying

"In almost all the training programmes, the farmers complain about sudden drying of grafts even after 2 to 3 years, non-flowering of the trees even after 6-7 years, poor fruit setting, less yield and poor quality of fruits. The only reason for all these problems is that the farmers have not taken proper care to procure quality planting materials," he says.

Though farmers are keen in procuring genuine planting materials they are unaware of the techniques in identifying the correct nurseries to source the right planting materials from. There are certain guidelines to be followed for selecting planting materials.

Nurseries should have a well maintained mother block (scion bank), which should have proper labeling of the variety, the nursery should maintain the documents for the source of planting materials for the mother block, the grafts should have proper labels of the variety and the date of grafting should be displayed.

Normally farmers procure the grafts without seeing the plants at the nurseries. One should realize that the fruit plants will start bearing only after four or five years and if the fruits are of poor quality, faulty planting materials are responsible and whatever money and energy have been spent are a waste.

Next question

After selecting the nurseries, the next question is how to identify and select the genuine and quality planting materials. An easy technique to identify the best quality planting material is that all the grafts of a particular variety should be uniform in their leaf characters. If variation is observed among the grafts displayed with the label of a particular variety, then these can be adjudged as faulty, poor quality planting materials. Further, the saleable grafts in the nurseries should be properly hardened before delivery which can be judged from the label displaying the date of grafting.

Minimum period

The grafts, before sale, should have been hardened for a minimum period of three months. In reputed nurseries, hardening is normally done by gradually exposing the grafts to open sunlight.

Another confusion which quite often bothers the farmers relates to what types of planting materials have to be used for different fruit crops. Except banana, acid lime and papaya most of the other fruit crops are cultivated by planting grafts.

Farmers usually prefer tall vigorous and two-year old approach grafts. But, considering the cost, difficulty in transport and poor field establishment, these grafts are not recommended for planting and at present it is recommended to plant soft-wood grafts. These two types of grafts exhibit good field establishment with less mortality and faster growth.

Since, these two methods are very easy and rapid, the nurserymen also have started producing these grafts. In recent times, the farmers have also realized that these grafts are better than the approach grafts.

"The Department of Fruit crops, Horticultural College and Research Institute, Periyakulam imparts need based trainings both for extension functionaries and farmers grafting technology. Farmers should come forward to learn these techniques to produce their own grafts. If the farmers learn to do this by themselves, then they can multiply their own planting materials,: says Dr. Selvarajan.

Suggestion

A word of caution for nurserymen is that they must always produce and supply true-to-type, quality planting materials at a reasonable cost to the farmers.

For more information contact Dr. M. Selvarajan, Professor and Head, Department of fruit crops, Horticultural college and research institute, Periyakulam, Tamil Nadu, email: smselva8@gmail.com, mobile: 9003027732, phone: 04546-231726.

Quantum biology mimicked in lab

For the first time scientists have engineered a series of molecules that show quantum effects similar to that observed in the light-harvesting complexes. Greg Engel's group in University of Chicago have been able to both understand as well as mimic the efficient mechanism of light transfer happening in plants.

Aside from other benefits, this would lead to the production of artificial energy-transfer devices which could use the mechanism efficiently.

Photosynthetic antennae are arrays of proteins and chlorophyll which transfer absorbed light energy to the reaction centres where light energy is converted to chemical energy. This enhances the efficiency of light transfer compared to the process when light is absorbed directly by the reaction centres themselves. The secret of the efficiency of the transfer process lies in quantum electronic coherence that stretches over some femtoseconds (a femtosecond is a millionth of a billionth of a second). When there is coherence, energy from the incoming photon can simultaneously explore every possible cholorophyll route from the protein's surface to the reaction centre at its core and then settle for the shortest route. Compare this with the time and energy wasted if the photon had to sequentially try out every path before reaching the reaction centre. Thus the efficiency of the process is increased manifold.

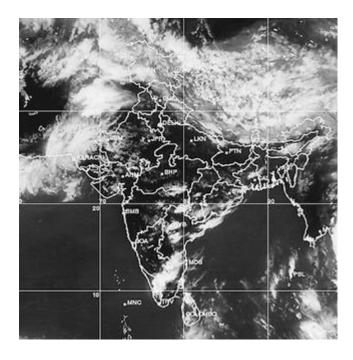
The researchers have engineered a series of molecules that show quantum effects similar to that observed in the light-harvesting complexes. Biological light-harvesting systems are so complex that they obscure the design principles involved. However, the model systems engineered by the group are simpler yet manage to capture the physics involved, according to the report published on April 18 in *Science Express*.

The main actor in this is a dye-like material called fluorescein. The researchers modified fluorescein and linked parts of these together rigidly to form a series of compounds. The resulting molecules were able to mimic the behaviour of light-harvesting centres in plants that use photosynthesis, especially the coherences which persists for over tens of femtoseconds. They infer the presence of this coherence using two-dimensional spectroscopy.

To observe the quantum coherence in the system, the team shone laser light into the system and recorded the emitted light by means of a camera and recorded it in movies.

Every frame of the movie was a two-dimensional spectrum. The movie showed quantum beats, or oscillations, in a particular region, which is evidence of quantum coherence. It is an exciting thought for the future that discovery of this molecule series and the mechanism of energy transfer may initiate the development of synthetic light harvesters which could lead to highly efficient and green energy manufacturing units.

Weather



INSAT PICTURE AT 14.00 hrs. Observations recorded at 8.30 a.m. on April 24th.

_ 10111				
	Max	Min	R	TR
New Delhi (Plm)	36	25	0	26
New Delhi (Sfd)	35	23	0	22
Chandigarh	34	21	0	26
Hissar	35	20	0	41
Bhuntar	29	12	0	137
Shimla	19	13	0	109
Jammu	33	21	0	35
Srinagar	23	9	2	157
Amritsar	35	20	0	6
Patiala	36	22	0	24
Jaipur	35	24	0	12
Udaipur	35	23	0	15
Allahabad	36	23	0	11
Lucknow	35	20	0	1
Varanasi	34	22	0	21
Dehradun	30	19	0	37
Agartala	33	21	0	68
Ahmedabad	37	26	0	6
Bangalore	34	23	1	25
Bhubaneshwar	37	25	0	52
Bhopal	36	22	0	52
Chennai	36	27	0	32
Guwahati	31	19	0	76
Hyderabad	35	25	8	50
Kolkata	35	21	18	31
Mumbai	32	27	0	0
Nagpur	37	21	5	24
Patna	32	22	0	14
Pune	38	22	0	3
Thiruvananthapuram	35	26	0	105
Imphal	31	15	0	114
Shillong	20	13	6	74
-1 1				

The columns show maximum and minimum temperature in Celsius, rainfall during last 24 hours (tr-trace) and total rainfall in mm since 1st March.

RAIN AT MANY PLACES

RAINFALL: Rain/thundershowers have occurred at a few places over Jammu and Kashmir and at isolated places over Himachal Pradesh, west Rajasthan and Uttarakhand. Weather was mainly dry over rest of the region.

MAXIMUM TEMPERATURES: The maximum temperatures rose appreciably in Haryana and Uttar Pradesh, rose in Punjab and west Rajasthan and changed little elsewhere. They were markedly below normal in east Uttar Pradesh and Uttarakhand, appreciably below normal in east Rajasthan and west Uttar Pradesh, below normal in Haryana, Punjab and west Rajasthan and normal in rest of the region. The highest maximum temperature in the region was 39.0°C recorded at Jhalawar (Rajasthan).

FORECAST VALID UNTIL THE MORNING OF 26th April

2013: Rain/thundershowers would occur at a few places over Jammu and Kashmir and at one or two places over Himachal Pradesh and Uttarakhand. Rain/thundershowers could occur at one or two places over Punjab, Haryana and Rajasthan. Weather would be mainly dry over rest of the region.

FORECAST FOR DELHI AND NEIGHBOURHOOD VALID UNTIL THE MORNING OF 26th April 2013: Mainly clear sky becoming Partly cloudy sky towards evening/night.

Water level

: Water level in the Papanasam dam on Wednesday stood at 64.90 feet (the maximum level is 143 feet). The dam had an inflow of 52.56 cusecs and 394.75 cusecs is discharged from the dam.

The level of Manimuthar dam stood at 84.90 feet (118 feet). The dam had an inflow of 11 cusecs and 5 cusecs is discharged.

Nagercoil

Water level in the Pechipparai dam stood at 14.30 feet, while it was 25.20 feet in Perunchani, 2.85 feet in Chittar I and 2.95 feet in Chittar II.

Water level in Periyar dam was 112.50 feet (permissible level is 136 feet) on Wednesday with an inflow of 297 cusecs and a discharge of

100 cusecs. In Vaigai dam, the water level was 39.53 feet (71). The inflow was 9 cusecs and discharge was 810 cusecs. The combined Periyar credit stood at 1,999 mcft. There was no rainfall in the region.

hindustantimes

Weather

Chennai - INDIA

Today's Weather

Partly Cloudy

Partly Cloudy

Rain: 0
Humidity: 75
Wind: normal

Thursday, Apr 25 Max Min

33° | 27°

Sunrise: 05:51 **Sunset:** 06:22

Barometer: 1012

Tomorrow's Forecast

Partly Cloudy

Friday, Apr 26 Max Min $36^{\circ} \mid 27^{\circ}$

Extended Forecast for a week

Saturday	Sunday	Monday	Tuesday	Wednesday
Apr 27	Apr 28	Apr 29	Apr 30	May 1
>	y	>	200	
		4	- Desire	200
36° 27°	36° 27°	38° 28°	38° 28°	37° 28°
Partly Cloudy	Partly Cloudy	Sunny	Cloudy	Overcast

THE TIMES OF INDIA

End of traditional farming ruins Attapadi

ATTAPADI: A full stop on their <u>indigenous</u>farming practice may have contributed to the deteriorating life conditions, especially worrying rate of infant mortality, among Attapadi tribals.

In the last 100 days, there were 18 deaths due to severe malnutrition. Last year, 15 malnutrition deaths were reported from the area where 172 Anganwadi Integrated Child Development service (ICDS) centres, responsible for monitoring nutritional and health status of infants, exist.

That the increase in infant mortality rates coincides with destruction of traditional models of agriculture is more worrying. A majority of the tribal families used to cultivate nutritional crops like ragi, corn pulses and vegetables without any government support. Organic farming practices were followed and the harvest insulated them from starvation and anemic diseases. But in the last decade, this farming practice declined rapidly due to massive deforestation, plummeting water tables and shifting of cultivation from food crops to cash crops.

This turned the area barren and unproductive denying any means of sustenance to 182 hamlets. An RTI reply stated that 90% of the 894 deaths reported between January 1, 2011, and June 6, 2012, comprised youth aged between 30 and 45.

The fact that these deaths are happening in a state that boasts of an average life span of 71 years highlights the level of negligence and callousness on part of state planners towards this tribal block.

Chronicle

Bill goes bananas!



The latest insanity from genetic engineers is to push genetically modified bananas on India to reduce iron deficiency in Indian women - AFP file photo

Nature has given us a cornucopia of biodiversity rich in nutrients. Malnutrition and nutrient deficiency result from destroying biodiversity. The Green Revolution has spread monocultures of chemical rice and wheat, driving out biodiversity from our farms and diets.

And what survived as spontaneous crops — like amaranth greens (chaulai) and chenopodium (bathua) that are rich in iron — were sprayed with poisons and herbicides. Instead of cherishing them as iron- and vitamin-rich gifts, these vegetables were treated as "weeds".

The "monoculture of the mind" treats diversity as disease and creates coercive structures to remodel this biologically and culturally diverse world of ours on the concepts of one privileged class, one race and one gender of a single species. As "the monoculture of the mind" took over, biodiversity disappeared from our farms and food. It's the destruction of biodiverse rich cultivation and diets that has led us to the malnutrition crisis.

The latest insanity from genetic engineers is to push genetically modified bananas on India to reduce iron deficiency in Indian women. Seventy-five per cent of Indian women suffer from iron deficiency.

One rich man named Bill Gates is financing one Australian scientist James Dale who knows one crop, the banana, to impose inefficient and hazardous GM bananas on millions of people in India and Uganda.

The project is a waste of money, and a waste of time. It will take 10 years and millions of dollars to complete the research. Meanwhile, governments, research agencies and scientists will become blind to biodiversity-based low-cost, safe, time-tested, democratic alternatives that are in the hands of women.

Indian women have a wealth of knowledge about biodiversity and nutrition; they received it over generations, from their mothers and grandmothers. Any woman will tell you that the solution to malnutrition lies in growing nutrition, which means growing biodiversity.

To remove iron deficiency, iron-rich plants should be grown everywhere — on farms, in kitchen gardens, in community gardens, in school gardens. Iron deficiency was not created by nature and we can get rid of it by becoming cocreators and co-producers with nature.

But there is a "creation myth" that is blind to both, nature's creativity and biodiversity as well as to women's creativity, intelligence and knowledge. According to this "creation myth" of capitalist patriarchy, rich and powerful men are the "creators". They can own life through patents and intellectual property. They can tinker with nature's complex evolution over millennia and claim their trivial yet destructive acts of gene manipulation as "creating" life, food and nutrition.

India's indigenous biodiversity offers rich sources of iron. For example, amaranth has 11.0 mg iron per 100 gm of food, buckwheat has 15.5, amaranth greens have upto 38.5, karonda 39.1 and lotus stem 60.6.

Bananas only have 0.44mg of iron per 100 grams of edible portion. All the effort to increase iron content of bananas will fall short of the iron content of our indigenous biodiversity. Not only is the GM banana not the best choice for providing iron in our diet, it will further threaten biodiversity of bananas and iron-rich crops and introduce new ecological risks.

If adopted, the GM banana will be grown as large monocultures, like GM Bt cotton in the banana plantations of Central America. The government and other agencies will push this false solution, and our biodiversity of iron-rich foods will disappear.

Also, our native banana varieties will be displaced and contaminated. These include Nedunendran, Zanzibar, Chengalikodan and the Manjeri Nendran II variety.

The idea of "nutrient farming" of a few nutrients in monocultures of a few crops is already being pushed at the policy level. Finance minister P. Chidambaram announced a Rs 200 crore project for "nutri farms" in his 2013 Budget speech.

Humans need a biodiversity of nutrients, including a full range of micronutrients and trace elements. These come from healthy soils and biodiversity.

There is a perverse urge among the biotechnology brigade to declare war on biodiversity in its centre of origin. An attempt was made to introduce Bt brinjal in India which is the centre of diversity for brinjal. GM corn is being introduced in Mexico, the centre of diversity of corn. GM banana is being introduced to the two countries where banana is a significant crop and has large diversity. One is India, the other is Uganda, the only country where banana is a staple.

HarvestPlus is the corporate alliance pushing "biofortification" — breeding crops to increase their nutritional value. But experts say that fortification of nutrients in foods could lead to insurmountable problems: "(it) may deliver toxic amounts of nutrients to an individual and also cause its associated side effects (and) the potential that the fortified products will still not be a solution to nutrient deficiencies amongst low income populations who may not be able to afford the new product and children who may not be able to consume adequate amounts thereof".

Australian scientists are using a virus that infects the banana as a promoter. This could spread through horizontal gene transfer. All genetic engineering uses genes from bacteria and viruses. Independent studies have shown that there are health risks associated with GM foods.

There is no need for introducing a hazardous technology in a low-iron food like banana when we have so many affordable, accessible, safe and diverse options for meeting our nutritional needs of iron. We have to grow nutrition by increasing biodiversity, not by industrially "fortifying" nutritionally empty food at high cost, or put one or two nutrients into genetically-engineered crops.

We don't need these irresponsible experiments that create new threats for biodiversity and our health; we don't need nutrient solutions imposed by powerful men sitting in distant places, who are totally ignorant of the biodiversity in our fields and thalis, and who won't have to bear the consequences of their destructive power. We need to put food security in women's hands so that the last woman and the last child can share nature's gifts of biodiversity.

Business Standard Cashew workers at Palasa get wage hike, units resume operations

The operators have agreed to hike the wages by 32% for women employees and 20% for men



Cashew units at Palasa here resumed operations from Wednesday after the owners reached a settlement with the workers on wage hike.

The negotiations between the operators and workers had started on April 1. The operators have agreed to hike the wages by 32 per cent for women

employees and 20 per cent for men, said Malla Srinivasa Rao, President, Palasa Cashew Manufacturers Association.

Each worker, at present, gets Rs 150-200 per day and this has been now hiked to Rs 200-260 per day. The workers were demanding a hike of 75 per cent.

There are about 200 processing units at Palasa and Kasibugga in Srikakulam district employing about 10,000 workers. Of this, 95 per cent comprises women. "Last year, we purchased cashew nuts from local farmers at Rs 85 per kg and now these are available at Rs 60-70 per kg. Though imported nuts are priced at Rs 60 per kg, local production is more," he said.

Special margins levied on NCDEX's June potato contract

A total margin of 35% was earlier added on the long side, 15% is the additional cash margin and 20% is the special cash margin



Special margins which were earlier levied on May and June contracts of potato has been extended to July contract of potato which is traded on National Commodity & Derivatives Exchange.

A total margin of 35% was earlier added on the long side, 15% is the additional cash margin and 20% is the special cash margin. While, on the short side an additional cash margin of 15% is levied, which is now applicable to the July contract as well. This is effective from 24 April.

The circular said that this has been done to avoid arbitrage opportunities between MCX and NCDEX.

Market pulse for agro commodities : Mangal Keshav

Total inflow of small cardamom crop declined to 71.9 tons from which 70.9 tons were sold at CPMC auction held at Kumily.

Total arrivals of chilli crop were steady ~0.6lakh bags while demand was firm among local buyers; but no major export demand was seen. Spot rates were quoted in the range of '53-'60 per kg, based on crop quality.

Arrivals of jeera crop declined to about 28,000-30,000 bags while trades declined to about 25,000 bags at auctions held at Unjha market. Spot rates were quoted at '125-'126 per kg, as per local traders.

Spot rates of pepper garbled declined to '357 per kg and that of un-garbled was down at '342 per kg while arrivals increased to 25 tons & the same were sold at auctions held at Kochi market, as per IPSTA.

Arrivals of turmeric crop declined to below 20,000 bags at mandis of Nizamabad while spot rates were steady & quoted at '54-'56 per kg, as per local traders. Erode & Sangli markets were closed on account of Mahavir Jyanti.

Average price of small cardamom declined to '577.5 per kg while maximum price offered was down at '967 per kg, as per spice board. Total inflow of small cardamom crop declined to 71.9 tons from which 70.9 tons were sold at CPMC auction held at Kumily.

Most of the mandis trading in soya bean were closed on Tuesday, on account

of Mahavir Jyanti. Spot rates of soya bean crop offered by planters were steady at '39.5-'40 per kg while rates across major mandis were unchanged at '38-'39 per kg, as per local traders.

Guar seed arrivals increased to 33,745 quintals, while the average of the closing spot rates were down at '9,217.7 per quintal. Inflow of mustard seed crop increased to 271,775 quintals, while average of closing spot rates were down at '3,068.3 per quintal, as per agriculture marketing board of Rajasthan.

Chana futures traded in a narrow range through major part of the session, in the absence of fresh cues from spot, where supply has increased in conjunction with firm demand from local buyers. Spot rates were steady & quoted at '35-'35.5 per kg.

Mentha oil futures fell sharply on the exchange counter with near-month contract hitting lower circuit, pressured by increase in supply, poor demand & estimates of higher output. Spot rates were down by '12-'15 per kg while supply increased to more than 200 oil-drums.

Indian procurement agencies have procured 119.49lakh tons of wheat as on April 22, 2013, up by almost 27% from the same period last year, as per trade reports.

MP might miss wheat procurement target

For this season, the crop in the state is estimated at 16.2 mt

Inclement weather, coupled with the aggressive entry of private traders into the wheat market, is likely to throw a spanner in the Madhya Pradesh government's record wheat procurement target of 11 million tonnes (mt) for this year. So far, the wheat procured from mandis stands at only a third of the

target. For this season, the crop in the state is estimated at 16.2 mt.

Traders are running out of wheat stocks and are pre-empting buying wheat from the open market and selling it to flour mills at higher prices. Flour mills don't have substantial wheat stocks and are keeping away from the market, as prices in the open market have surged.

The Food Corporation of India aims to procure 44 mt of from various regions across the country. Of this, a quarter is expected to be procured from Madhya Pradesh.



"We have nil stocks this year. So, we are purchasing wheat at higher prices. Common varieties, such as the Lok-I cost Rs 300 a quintal more, while prices of the Sujata (sharbati) variety are Rs 500/quintal higher," said Sanjeev Jain, an office-bearer of the Bhopal Grain Merchants' Association.

Traders and sources in the government, as well as in mandis, said farmers were holding on to wheat stocks, anticipating higher prices. Mandi officials in Bhopal said this had led to a fall in arrivals to government procurement centres. "We cannot pick wheat, as this would be a costly affair for us," said Sunil Agrawal, president of the Madhya Pradesh Flour Millers' Association. Flour millers expect prices to fall after procurement, while traders and farmers believe mills would have to buy wheat at higher prices from the market.

"On an average, private traders are buying about 8,000 quintals daily, while 5,000 quintals go to government procurement centres," said a Bhopal mandi official, adding, "Since last week, traders are coming forward to offer higher prices to wheat growers."

At the mandis in Hoshangabad, Itarsi, Seoni Malwa, Harda and Barasia, where wheat is usually procured by the government on arrival, the case is similar. "Since the last few days, private traders have also picked substantial wheat," said an official at the Hoshangabad mandi.

Year	Procurement (mn tonnes)	Minimum support price (₹/qtl)
2009-10	1.97	1,080
2010-11	3.54	1,100
2011-12	4.96	1,120
2012-13	8.51	1,285
2013-14	11.00	1,350

Traders expect to procure at least 40 per cent of the wheat available with farmers, as this would fetch them better prices when demand would rise, once the government procurement season was over. "We will close this session in the Bhopal, Indore, Ujjain and Hoshangabad regions by May 18; in the rest of the regions, government procurement would end on May 25. As of now,

we cannot say whether we would achieve the target of 10.9 mt. At 3.6 mt so far, the procurement is as expected," said Chandrahas Dubey, managing director of Madhya Pradesh Civil Supplies Corporation.

Wheat procurement in Madhya Pradesh began on March 18.

The state government is offering a bonus of Rs 150 bonus per quintal of procured wheat, making it lucrative for farmers (Rs 1,500 a quintal). To make wheat procurement more transparent, the state government has introduced an electronic system. This year, about 1.5 million farmers have been registered under this system. A total of Rs 1,050 crore has been earmarked for the bonus; so far, Rs 5,500 crore has been transferred to farmers' accounts, against procurement.

Business Line Delay in fixing subsidy puts fertiliser firms in a spot

Cos print last rabi season's MRP on bags even as global

prices fall



New Delhi, April 24: The delay in announcement of subsidy rates for de-controlled phosphatic (P) and potassic (K) nutrients for the current fiscal has put the fertiliser industry in a quandary. While the new subsidy rates should have been effective from April 1, fertiliser makers are currently tagging bags with the maximum retail prices (MRP) of the last rabi season printed on them.

This, even as it is expected that the Government would lower the subsidy rates in line with the fall in international prices.

Currently, di-ammonium phosphate (DAP) is being imported into the country at a landed cost of around \$520 a tonne, against \$580.

Likewise, imported muriate of potash (MOP) is now being quoted at \$430 compared with \$490 a tonne last year.

Despite the fall in global prices, fertiliser firms are still printing the MRP for DAP and MOP at the last rabi season levels of Rs 24,000 and Rs 17,000.

reduction

Strictly speaking, since the subsidy rates on these have been unchanged, they ought to have reduced the MRPs in line with the falling international prices.

"But we cannot do this because the Government may any day announce the lower subsidy. If we reduce the MRP now and then the Government lowers the subsidy, the MRPs will have to be revised upward all over again," an industry official pointed out.

For 2012-13, the Government had announced the NBS (nutrient-based subsidy) rates on March 1, 2012 - a month ahead of the fiscal. But this time, it has not done so even as the first month of the fiscal is virtually over.

Subsidy rates

So, there are a lot of bags being sold, based on the subsidy rates of last year.

This does not include the carry forward stocks of some eight million tonnes from last year, the official noted.

According to him, the industry would be happy if the subsidy rates were retained at the 2012-13 levels.

"It will give us the leeway to reduce the MRPs for DAP, MOP and complexes, which we are unable to sell because farmers are not willing to buy at the current rates. If we lower them, we will be able to clear our accumulated stocks."

But then, the Government will have to be prepared for a higher subsidy bill.

In fact, the fertiliser ministry has suggested a 14 per cent cut in diammonium phosphate (DAP) and 19 per cent reduction in MOP prices for the current fiscal.

In March, the fertiliser ministry had suggested a cut in DAP subsidy by Rs 2,000 a tonne and for MOP by Rs 2,700 a tonne for 2013-14.

The subsidy on DAP is likely to be pegged at Rs 12,350 a tonne for 2013-14, down 14 per cent against last year's Rs 14,350.

Similarly, the subsidy for MoP was likely to be pegged at Rs 11,740 a tonne in 2013-14, down 19 per cent against last year's Rs 14,440 a tonne.

Changes in tea trade posing many challenges: J Thomas chief



Krishan Katyal

Kolkata, April 24: J. Thomas & Company Pvt Ltd, according to its new Chairman and Managing Director Krishan Katyal, will continue to add value to its customers and try to make difference in its functioning and efficiency to benefit all stakeholders, both within the company and outside, without sacrificing its basic culture developed over past 150 years or so.

"We would like to be the most preferred, most trusted and certainly the best service resources in tea industry and we would bring different qualities to the job through a consensual approach," Katyal observed while talking to *Business Line*.

"We've set the ball rolling spanning the spectrum of hierarchy as I'm encouraging executives at all levels to come out with new thoughts and fresh ideas and the experience so far has been rewarding".

Katyal took over on April 1 as the CMD of the world's largest and also the oldest tea auctioneers and broking firm. He has completed

36 years in the company with another six years to go before retirement.

computerisation

Over the years, he witnessed how slow evolution overtook the tea industry in general and tea broking and auctioning system in particular.

"When I joined in 1977, everything was manual which was timetaking and therefore tedious. When computers came, there was the usual resistance from the staff fearing job loss. They started accepting the new technology when the fear was unfounded. They now realise the advantages".

Right now, as he pointed out, all backroom operations related to pre-sale and post-sale were computerised.

The manual auction had been replaced by e-auction.

The dissemination of information had now become so much easier than before.

Over the years successive generations of tea professionals serving the 152-year old J. Thomas passed their experience and knowledge on to next generations.

core areas

"We know our core competence arising out of the collective knowledge in tea manufacturing, tasting and marketing and diversification, if any, will be only in areas related to our core competence", he observed.

It might be noted that the company's earlier foray into non-core shipping and financial services proved disastrous. Katyal acknowledged that tea trading was passing through a lot of changes posing a challenge to the company.

J. Thomas, as he emphasised, must adapt itself to the changes, and if needed, must be at the vanguard of those changes "but without compromising the basic ethos we've always stood for".

"Asked how he felt like being at the helm of the company where he had joined as a junior officer, Katyal replied, "the perspective has changed; earlier I used to concentrate on certain well-defined areas but now responsibility is all encompassing. A huge task, indeed but not too bad".

Volume hits 9-week high at Coonoor tea sale

Coonoor, April 24: A volume of 13.44 lakh kg would be offered for Sale No: 17 of Coonoor Tea Trade Association auction to take place on Thursday and Friday, reveals our analysis of the brokers' listings.

This is the highest volume in nine weeks. It is some 99 thousand kg more than last week's offer and as much as 2.86 lakh kg more than the offer this time last year.

Of the 13.44 lakh kg on offer, 9.74 lakh kg belongs to the leaf grades and 3.70 lakh kg belongs to the dust grades. As much as 12.66 lakh kg belongs to CTC variety and only 0.78 lakh kg, orthodox variety. In the leaf counter, only 0.52 lakh kg belongs to orthodox while 9.22 lakh kg, CTC. Among the dusts, only 0.26 lakh kg belongs to orthodox while 3.44 lakh kg, CTC.

Of the 13.44 lakh kg coming up for sale, fresh tea accounts for 11.40 lakh kg. About 2.04 lakh kg comprises teas which had remained unsold in previous auctions. In the Leaf auction last week, Hindustan Unilever Ltd bought brighter liquoring and medium varieties while Duncans Tea Ltd bought medium brokens. Godfrey Philips India Ltd was selected medium grades.

In the Dust auction, HUL, and Tata Global were selective. Duncans and Godfrey did not operate. Indcoserve bought medium smaller dusts. AV Thomas and Co Ltd bought brighter liquoring smaller grades. Exporters were selective on plainer grades but upcountry buyers demanded brighter liquoring teas.

Spot rubber rules flat

Kottayam, April 24: Spot rubber finished unchanged on Wednesday.

The market lost its direction amidst scattered transactions as the trendsetting National Multi Commodity Exchange (NMCE) remained closed on account of Mahavir Jayanti.

Sheet rubber was quoted steady at Rs 158 a kg both at Kottayam and Kochi, according to traders and the Rubber Board.

Meanwhile, the TOCOM rubber futures recovered from the early loses partially after it failed to break below the recent five-month low, with prices supported by yet another dip in the yen against the dollar.

The global supply is also expected to improve shortly once farmers resume tapping in late April after a one month break during the dry season in Thailand, the world's biggest rubber producer.

RSS 3 (spot) inched up to Rs 154.75 (154.13) a kg at Bangkok.

The May futures improved to \$247.1 (Rs 134.49) from \$241.3 during the day session and then to \$251 (Rs 136.61) in the night session on Tokyo Commodity Exchange (TOCOM).

Spot rubber rates (Rs/kg): RSS-4: 158 (158); RSS-5: 154 (154); Ungraded: 148 (148); ISNR 20: 147 (147) and Latex 60 per cent: 102 (102).

Mother Dairy to go national with its frozen aloo tikkis

New Delhi, April 24: Instant snack market gets a local flavour. Mother Dairy is set to roll out ready-to-eat snacks from its stable. Mother Dairy has entered the market with frozen aloo tikki, as part of its product diversification strategy. The market of frozen potato snacks, at present, is dominated by Canada's McCain Foods.

"We see a big potential in the heat-and-eat segment and plan to increase our presence in this category," said Pradipta K. Sahoo, Head of Fruit and Vegetable business at Mother Dairy.

For the past few months, the company has been test-marketing its frozen aloo tikkis under the Safal brand through its 400-odd fruit and vegetable outlets in Delhi, where it has sold about 10 tonnes.

"The initial volumes are encouraging and we plan to scale up our presence pan-India and expand the product range going forward," he said.

Mother Dairy is setting up a new unit to manufacture frozen aloo tikkis at its fruit and vegetable distribution and processing facility in Mongolpuri, Delhi.

"We plan to invest a few crores in the manufacturing facility," Sahoo said.

Mother Dairy sees a synergy in the frozen food with its ice cream business, through which it also sells the Safal frozen peas and frozen vegetables.

"We want to leverage the strong distribution and retailer network that we already have for our ice cream business," he said.

The company's distribution network reaches to over 15,000 outlets.

Factors such as convenience, changing lifestyles and rising disposable incomes have been the key drivers for the frozen food segment, which has seen a rapid growth in recent years.

The proliferation of modern retail grocery stores and the change in perception of consumers with regards to frozen processed foods is aiding the category growth.

McCain Foods leads the fast emerging market in India for frozen French fries and potato specialties among others.

Gold prices vulnerable to further downside risk

Mumbai, April 23: Indians are known to be savvy investors in gold.

They have continued to import /buy the yellow metal for the last 10 years or so in enormous quantities at relatively low prices.

If anything, volumes have been rising with every rise in price; and such price rise created wealth. In 2005, 10 gm of gold cost Rs 6,000. Prices steadily gained and hit Rs 32,000 in 2012 following a surge in international rates and a weak rupee.

However, those who entered the market in the last 15-18 months after prices moved well above Rs 27,000/10 gm (with hopes of further price rise) but did not exit the market in time may have cumulatively suffered losses of Rs 25,000-35,000 crore following the recent crash in gold prices.

There are reports that despite the precipitous price fall, Indians are once again lapping up gold like bargain hunters.

'Averaging'

On the face of it, this may appear paradoxical; but there is a logic. One strong reason for this phenomenon is that having lost money, buyers now want to reduce the losses by what is called 'averaging' in trade parlance.

For instance, suppose I had purchased 10 gm at Rs 32,000 last year, then I have lost about Rs 5,000 in value due to the latest price fall. However, if I invested in an additional 10 gm now and bought at the current price of say Rs 27,000, then my total cost is Rs 59,000 (for 20 gm) and the average price becomes Rs 29,500/10 gm. My loss is reduced to Rs 2,500. It is likely that some of the smart investors are doing this now. Of course it assumes that such smart investors have spare cash to invest for the purpose of averaging.

But is such additional investment prudent at this point of time? Where is the gold market headed? From the late 2012, gold prices have softened in dollar terms as well as in rupee terms. Return on gold investment in 2012 turned out to be much less attractive than in the previous several years.

With the recent meltdown, demand for the yellow metal as an investment asset is sure to take a beating. While physical demand for household consumption (say for weddings and so on) will stay robust because of price elasticity of demand, investors will surely turn more wary of putting more money in gold.

Demand Slowdown

A slowdown in investment demand is sure to drive domestic prices further down. Additionally, the tendency to expect even lower prices can make buyers stay in the sidelines. While it is rather tough to crystal-gaze the direction of gold prices from here on, it appears that the downside risk to prices is far greater than an upside risk.

From the supply side, while scrap sales may reduce at the current low prices, from a mine supply perspective, the marginal cost of production is still well below the current price of \$1,400/ounce. Therefore, any threat of mine closure and supply disruption is illusory and not real.

Second, the possibility of some countries including some European ones selling gold to tide over financial difficulties cannot be ruled out. Further outflows from physically-backed exchange traded funds can put additional downward pressure on prices.

At the same time, crash in gold prices and more benign crude oil prices are sure to benefit India. Given that these two commodities account for large outflow of foreign exchange, lower prices will not only help bring down the current account deficit, but also prevent the rupee from depreciating.

If anything, the rupee has the potential to firm up and lower the landed cost of gold in rupee terms. So, there is still some downside left for gold prices to probe, both internationally and domestically.

In dollar terms, it could go as low as \$1,300/oz and even lower. In the event, in rupee terms, Rs 25,000/10 gm may become a possibility.

Upside risk to gold prices may come unexpectedly from adverse geopolitical developments, renewed worries over European debt crisis or injection of more liquidity.

Expecting prices to surge, farmers hold back turmeric



Erode, April 24: Spot turmeric prices decreased in Erode due to lack of upcountry orders.

"Exporters are waiting for new upcountry orders; so they are staying away from buying. Local traders are buying quoting lower price for fulfilling their orders to the *masala* firms. Stockists have begun buying huge quantities.

"Already they are holding stocks of over 10 lakh bags and now they have decided to stock more," said R.K.V. Ravishankar, President of the Erode Turmeric Merchants Association.

He said that the turmeric cultivation in 2012 was meagre and now, due to severe drought, no farmer is ready to grow turmeric. In fact, farmers have begun to stock up turmeric expecting prices to touch Rs 15,000 a quintal.

Farmers hope prices will go up and touch Rs 15,000 a quintal.

In all the three markets, prices decreased by Rs 180-220.

Due to lack of quality offering, the hybrid crop decreased by Rs 300. Of the arrival of 7,600 bags that arrived, 45 per cent of stocks was sold.

At the Erode Turmeric Merchants Association sales yard, the finger variety fetched Rs 4,519-8,207 a quintal; the root variety at Rs 4,090-6,519.

Salem hybrid crop: The finger variety was sold at Rs 5,611-8,885, the root variety at Rs 5,316-7,609. Of 1,787 bags on offer, 30 per cent found takers.

At the Erode Cooperative Marketing Society, the finger variety was sold at Rs 6,212-7,659, the root variety at Rs 5,789-6,610. Of the 868 bags put up for sale, 801 got sold.

At the Gobichettipalayam Agricultural Cooperative Marketing Society, the finger variety was sold at Rs 6,229-8,159, the root variety Rs 6,091-7,041. Of 241 bags offered, 222 were sold.

Rice buyers await fall in prices

Karnal, April 24: With the trading being lukewarm, prices of aromatic and non-basmati rice varieties remained unchanged on Wednesday.

Amit Chandna, proprietor of Hanuman Rice Trading Company, told *Business Line* that the market is moving at snail's pace.

Surprisingly, after witnessing some good buying in this month, a steady trend has prevailed in the market.

Bulk buyers are reluctant to take fresh position in the market and they are waiting for prices to drop, while rice millers are not interested in selling below the current levels, said market experts.

While the market may witness some alteration next week, major changes in prices are unlikely this week, said Amit Chandna.

In the physical market, Pusa-1121 (steam) sold at Rs 8,200 a quintal while Pusa-1121 (sela) quoted at Rs 7,150.

Pure basmati (raw) quoted at Rs 9,000. Duplicate basmati (steam) traded at Rs 7,100.

For the brokens of Pusa-1121, Dubar quoted at Rs 4,100, Tibar sold at Rs 4,950 while Mongra was at Rs 3,100.

Similarly, non basmati varieties continued to rule flat. Sharbati (steam) quoted at Rs 5,400, while Sharbati (sela) was at Rs 5,050.

PR-11 (sela) sold at Rs 3,400-3,450 while PR-11 (raw) quoted at Rs 3,100-3,150. Permal (raw) sold at Rs 2,500 while Permal (sela) went for Rs 2,400. PR14 (steam) sold at Rs 3,200.

Increased arrivals pound pulses



Indore, April 24: Pulse seeds and pulses in Indore mandis either ruled flat or declined marginally on slack demand and increased arrivals.

Tur has declined by Rs 100 a quintal on weak buying support and demand from the millers.

Tur (Maharashtra) in Indore mandis on Wednesday declined to Rs 4,700-4,750 (Rs 4,775-4,800) on weak demand, tur (Madhya Pradesh) ruled stable at Rs 4,200-Rs 4300.

Compared with last week, tur (Maharashtra) is ruling Rs 100-150 lower.

Traders see tur prices going as high as Rs 5,000 and more.

Tur dal ruled stable on subdued demand and buying support with tur dal (full) in local mandis being quoted at Rs 6,700-6,800, tur dal (sawa no) at Rs 6,000-6,100, while tur marka is ruling at Rs 7,400.

With summer moong hitting local mandis, albeit in small quantity, moong prices have also declined by Rs 200.

On Wednesday, moong (bold) ruled at Rs 5,800-6,000, while moong (medium) at Rs 5,400-5,500. Moong prices last week had soared to Rs 6,200 on strong buying support and weak arrivals.

Moong dal however, remained unchanged compared with its prices last week on subdued demand.

Moong dal (medium) ruled stable at Rs 6,900-7,000, moong dal (bold) at Rs 7,300-7,400, while moong mongar ruled at Rs 7,500-7,800.

Slack demand has also arrested uptrend in urad with urad (bold) ruling at Rs 3,500-3,600, while urad (medium) ruled stable at Rs 3,100-3,200.