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THE HINDU

Processed tender coconut water incubated at TNAU



Health conscious consumers and soft drink enthusiasts will soon have an alternative in the processed tender coconut water that entrepreneur M.N. Varadarajan has managed to produce.

With the help of the Directorate of Agri Business Development of the Tamil Nadu Agricultural University he has processed tender coconut water to give it a shelf life of a year when stored in the right temperature. Mr. Varadarajan says his non-thermal processing technique controls microbial activity to increase shelf life while retaining all that is natural in coconut water.

The University Vice-Chancellor K. Ramasamy says that the product is natural as nothing is added.

It took more than a year-and-a-half for Mr. Varadarajan and his wife Sujatha to come out with product 'Coco Fresh'. They spent the first six months of 2014-15 to come out with a raw product and the next 12 months to fine tune

it based on suggestions from consumers and inputs from experts in the University.

Mr. Varadarajan says that most of it was spent in arriving at the right process as he had to preserve the nature of tender coconut water.

He did not opt for Pasteurisation, as few others in the market did, because it altered its nature.

The University supported by providing a sterile environment and eliminating microbial activity because a microbe-free product was important for long shelf life, says R. Murugesan, Director, Agri Business Development.

The ideal plant that Mr. Varadarajan has conceived requires 5,000 tender coconuts a day. At an average of 250 ml a coconut, the plant will produce 1,250 litres processed tender coconut water a day. There will be direct employment to 10 persons and indirect employment to around 50 people, who will work in farms that supply coconut.

This will help coconut farmers get a steady income, Mr. Ramasamy adds.

Technology assistance comes in handy for farmers

'All-weather stations' send SMS alerts to them



All possible help:Collector L. Subramanian inspecting mechanised paddy implantation at Attapatti in Melur taluk in Madurai district on Wednesday.

Using technology, farmers in the district are now getting SMS in their mobile phones on information about wind direction, soil temperature, humidity and expected rainfall from all-weather stations, said Collector L. Subramanian.

Officials of the Department of Agriculture, Agri-Engineering and Horticulture had organised a tour for media persons on Wednesday for an on-the-spot visit of various works under way and facilities provided for the farmers.

Briefing reporters, the Collector said that the all-weather stations, which functioned in 13 blocks in the district, would disseminate information to registered farmers, who could learn about the different parameters of weather and accordingly carry on their farm activities. For instance, a farmer who had planned harvest after a week, could advance it based on weather parameters and thus save the produce from getting damaged.

Under the watershed activity, the officials had formed a new oorani (tank) measuring 76 metres x 21 metres at Attapatti, which could store rainwater and also enable recharging of groundwater table in the locality.

Praising the horticulture department officials, Dr. Subramanian said that in a bid to give a fillip to horticulture crops, close to 18.5 lakh seedlings of mango, guava and sapotta were distributed to the farmers in the district. "This is expected to bring in higher production in the ensuing harvest season," he hoped.

Very recently, the agri-marketing officials had opened a new integrated procurement facility at Mattuthavani market complex. This, he said, had benefitted both the farmers and merchants to a great extent, thus eliminating the role of middlemen. The mega size facility could store close to 14,500 tonnes of different commodities brought by the farmers here. A similar facility at Usilampatti, which could store around 2,500 tonnes, was under construction and would be dedicated to the farmers soon, he added.

Rain uproots 49 species of trees in Botanical Garden

Irreparable loss: (Top) A huge tree which fell on the tracks of the toy train at Government Botanical Garden in Puducherry; (above) one of the big trees which were uprooted in the rain. — Photos: S.S. Kumar



Plans afoot to maintain a collection of trees native to Eastern Ghats

The recent spell of heavy rain that lashed several parts of the city and its suburbs since November 9 has uprooted nearly 49 species of trees native to the Coromandel Coast in the century old Government Botanical Garden here.

While two of the trees (Atti and Red Gulmohar) were about 80 to 100 years old, another tree Albizia saman commonly known as Rain Tree was about 50 years old while the rest were aged between 30 and 50 years of age.



Timber to be auctioned

The trees are being removed. The timber will be auctioned after getting the nod of the Department of Forests said an official on anonymity.

The Botanical Garden (Le Jardin Botanique) established in 1826 by French botanist G.S. Perrottet encompasses 11 hectares of natural bounty that features indigenous and exotic flora ranging across evergreen, semi-evergreen, deciduous and tropical dry evergreen species.

189-year history

With a history spanning 189 years, the Botanical Garden is among the oldest on the Coromandel Coast, and perhaps the only one of its kind on the East Coast. The collection includes over 2,400 trees, 213 genus types and 296 species.

Sources said that as many as 300 trees were uprooted during Cyclone Thane in 2011. The Department of Agriculture procured species including Footstool Palm and Lipstick and replanted them in the garden.

At present the collection includes 130 exotic species and 166 indigenous species besides shrubs, medicinal plants, palm collection, fossils, foliage, ornamental plants, cycads and fruit trees. The oldest trees of the Bombax and Khaya genus go back 175 years.

According to official sources in the department, the botanical garden has around 89 of the total 122 species found in the tropical dry evergreen forests of the Southern Coromandel Coast.

Extensive collection

The Department has now planned to maintain an extensive collection by procuring the remaining species native to the Eastern Ghats labelled with their common and scientific names.

The Department will be adding 35 new species such as Ficus Hispida, Salvadora Persica, Semecarpus Anacardium, Commiphora Caudata, Albizia Planiflora and Ziziphus Oenoplia to the garden.

The saplings will be procured from plant nurseries and government research institutions so that native trees of the Coromandel Coast are replanted. The idea is to have the entire indigenous species native to the Coromandel Coast and gradually introduce non-native species to the garden.

Few takers for oranges in Kerala

Even at below Rs.20 a kg, not many takers for the fruit

The recent deluge in Tamil Nadu has resulted in a decline in the prices of orange which otherwise is in good demand in the State during the season.

That, coupled with a high yield of the Nagpur varieties of the fruit, has resulted in the traders here selling the fruit at prices below Rs.20 a kg. Small junctions in the main towns in the high range areas bordering Tamil Nadu are dotted with vehicles exclusively selling oranges at Rs.100 for four kilograms.

Sellers say that even at this price there isn't much demand for the fruit as the high range area is still witnessing rainfall and the day temperature is at a low. Usually, the winter season has good demand for orange juice in eateries and cool bars with the day temperatures remaining at a high, says Remesan T., who runs a bakery-cum-cool bar at Kattappana.

As usual, large quantities of Nagpur oranges which have only a short shelf life arrived for the Tamil Nadu market.

However, with virtually no demand in the wake of heavy rainfall there, large quantities were diverted to the border district to sell at a low price.

Wholesale dealers say that they get oranges from Nagpur at prices as low as Rs.15 to Rs.20 a kg.

They say that expecting a further fall in the prices, farmers sell even the near-ripe ones resulting in a flood of oranges in the market.

Those at the receiving end are the fruit farmers of Kanthallur in the district, where the harvesting season of orange is slowly coming to an end. Chandrasekharan, a farmer at Guhanathapuram, told *The Hindu* on Wednesday that Tamil Nadu was their main market. There are virtually no takers now for their oranges. Usually some visitors to the farms would have taken their oranges at a good price.

The farmers in Kanthallur grow both the Nagpur and the traditional varieties of oranges.

He says that they sell orange at prices ranging from Rs.18 to Rs.20 a kg. However, the situation suddenly changed with no takers for their orange, especially for the traditional variety, which the farmers claim have longer shelf life and are sweeter than the Nagpur variety, though smaller in size.

New pesticide testing labs

The special divisions for testing the presence of pesticides in food materials, including fruits and vegetables, will begin functioning at the Government Analytical Labs (GAL) under the Food Safety wing in Thiruvananthapuram and Ernakulam from Thursday.

All necessary facilities for enabling this, including the Gas Chromatography–Mass Spectrometry machine, has been readied in these labs at a cost of Rs.2 crore. Additional 15 posts too have been created and appointments also made in the labs.

New divisions

Health Minister V. S. Sivakumar will inaugurate the new divisions at the GAL here on Thursday at 2 p.m.

Forest dept. to replicate Valparai, Kodagu models



An elephant calf which came to Karakal village near Udhagamandalam damaged crops for few days and latter was chased away by the forest departmentFile PHoto

Stung by the highest number of deaths, ten in Gudalur forest division, in human-elephant conflict in just one-year, the Forest Department has decided to replicate the successful models of Valparai and Kodagu.

Early warning system of Valparai and proactive participation of plantation workers tried out in Kodagu had mitigated the conflict.

A meeting of the stake holders, involving the plantation labour trade unions, estate managements, revenue, police, inspectorate of factories and labour department, was conducted at Udthagamandalam and Gudalur on Tuesday and Wednesday. D. Boominathan, landscape co-ordinator of WWF, made a presentation on the causative factors and remedial measures both interim and long term.

During the current one year as many as ten lives were lost, mostly plantation labourers in Gudalur division. The division, spreading over 260 small patches i.e., 11,500 hectares, had been witnessing the highest human-animal conflict. The division was sandwiched between Mudumalai in Tamil Nadu and Neelambur in Kerala. Elephants normally migrated from Wayanad and northern side of Mudumalai towards O Valley and Neelambur in Kerala, said I. Anwardeen, Conservator of Forests – Coimbatore Circle.

Huge estates, partitioned and turned into smaller patches leading to fencing, had also resulted in fragmentation of the migratory paths. The analysis of deaths revealed that plantation workers venturing out early in the morning or returning late in the evening proved to be one of the causes, said S.N. Tejaswi, Divisional Forest Officer-Gudalur.

The administration and the labour departments had warned the estate managements to stick to the working hours stipulated in law as any violation would only put their lives at risk. In addition, Sundays should have been used for perambulating the estates and peripheral areas looking out for traces of elephant movement. But in some conflict situations, reasons for death were found to be forcing the workers to turn up on Sundays and not doing the perambulation, the officials said.

Analysis of the deaths this year and conflict mapping of the previous years indicated that Pitherkad, Pandalur, Cherambadi and O Valley were proving to be highly conflict prone. Hence, the Forest Department had decided to expand the early warning system put up at 13 places by the Gudalur Division

with the help of WWF. The department would now work in tandem with Nature Conservation Foundation, which had given the most successful early warning systems mitigating the conflict scale in Valparai which falls under the Anamalai Tiger Reserve (ATR) and replicate it here.

In addition, at the ground level, the Gudalur Forest Division will tie-up with local cable channels and will create a Whatsapp group for instant dissemination of information relating to elephant or herd movements. The Department is also planning to replicate the Kodagu model, wherein the Department will train the staff from plantation managements at Mudumalai and impart them with the skills to spot and track elephants by their smell, dung and traces of trampled grass.

This could enable them to take up periodical perambulation of the Estate and their peripheral areas to warn the estate staff and turn the estate managements into a proactive mode.

Early warning system is likely to prevent man-animal conflict

Rural landholding almost halved over 20 years

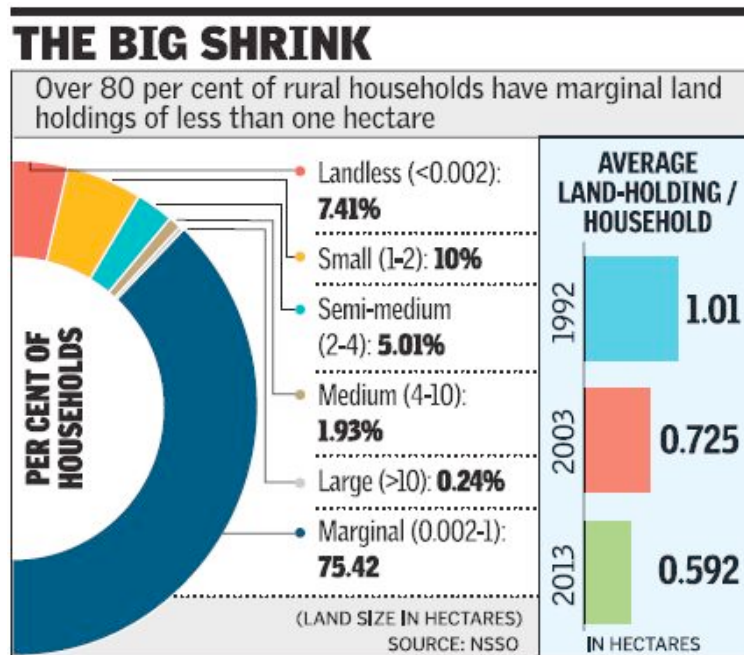


Over half of land-holdings used for agriculture are being used to grow cereals, the data shows. Representational Photo: Mohammed Yousuf

The average rural Indian household is a marginal landowner, growing mainly cereals on a small patch of land and reliant on groundwater for irrigation, new official data show.

Over 80 per cent of rural households have marginal landholdings of less than one hectare (10,000 square metres) and just seven per cent own more than two hectares, data on household land ownership from the National Sample Survey Office show.

Tribal people are over-represented among the landless, Scheduled Castes among marginal land-owners, and forward castes among medium and large landholders, the data show.



Across the country, in every State, landholdings have decreased in size, almost halving in the last 20 years; in 1992, the average rural household was a small landholder with over one hectare of land, as compared with a marginal land-holder as of 2013 with 0.59 hectares of land.

Migration is relatively rare among agricultural households, but is highest among households with marginal landholdings unable to provide the family much income; over 75 per cent of all migrants come from marginal landowning households.

Among families with more land, far fewer have family members living away from home.

While the majority of Other Backward Castes (OBC) and forward caste rural households identify themselves as primarily self-employed in cultivation, the largest chunk of SC households in rural areas are engaged in wage labour or salaried employment.

India's best-educated and most prosperous States — Kerala, Tamil Nadu, Punjab and Himachal Pradesh — had the highest proportions of rural households engaged in wage employment, while in poorer States like Chhattisgarh and Uttar Pradesh, 60 per cent of rural households were dependent on cultivation.

Over half of land-holdings used for agriculture are being used to grow cereals, the data shows. Between 60 and 70 per cent of land under cultivation is being irrigated directly from groundwater sources like tubewells.

India opposes rich nations' bid to cherry pick farm issues



Special Safeguard Mechanism (SSM) is meant to protect the interests of resource-poor and subsistence farmers in the developing nations.

India, at the ongoing WTO's Nairobi meet, called for a balanced outcome in negotiations on agriculture including an agreement on Special Safeguard Mechanism (SSM).

SSM is a trade remedy that will allow developing countries to temporarily increase duties to address import surges and price dips due to heavily subsidised imports of agricultural products from developed countries. SSM is meant to protect the interests of resource-poor and subsistence farmers in the developing nations.

India opposed efforts by the developed world to cherry pick issues from within the 'Export Competition' pillar that concerns farm export subsidies reforms, which is either reduction or elimination of such subsidies. India had earlier called for a drastic reduction of farm subsidies in the rich countries, India has also opposed efforts by the rich countries to link a deal on SSM to that on 'export competition, as it is sticking to its position that SSM is not up for bargain during the negotiations.

An instrument similar to SSM was already available to a select few countries (especially the developed countries) for over two decades. Therefore, the demand for SSM was reasonable and pragmatic, Commerce Minister, Nirmala Sitharaman, said in a statement.

There are attempts to dilute the 'Export Competition' provisions to suit a few members, she said. "At this late hour, new definitions and language are being proposed. It is not possible to react to these new concepts without extensive domestic consultations." India expressed concern over new concepts on 'Export Competition' being discussed by a limited group of members, adding "This severely impacts the transparency of the process."

Sitharaman met the WTO director general Roberto Azevedo and sought similar discussions to take forward the proposal on SSM, sources said.

Ms. Sitharaman said a simplified proposal on SSM has already been submitted and asked the WTO Chair on Agriculture negotiations to speedily work on this.

"We expect WTO members to engage constructively on the issue (of SSM) so that we can arrive at an outcome in Nairobi," the minister said.

India has already rejected claims by rich countries that there is a broad consensus for a deal during the WTO's Nairobi meet on getting rid of farm export subsidies. Brazil and European Union were among those WTO members who have pitched for a deal on 'Export Competition' at the ongoing Nairobi Ministerial Conference.

A deal, only in 'Export Competition' and not on SSM, at the Nairobi meet will disturb the balance in WTO's agricultural negotiations, she said..

Developing and poor countries want rich countries to drastically reduce their trade distorting farm subsidies, while simultaneously seeking adequate flexibility in reducing their own farm export subsidies. Rich countries, on the other hand, have sought greater commitments from emerging markets such as India on undertaking greater commitments on farm export subsidies. India had sought additional flexibility for developing countries so that they can provide such more subsidies on some products, while reducing subsidies on other products.

‘Farmland for retired soldiers’

The State government is willing to allot agricultural land to retired soldiers if they (soldiers) come up with concrete proposals, said Home Minister G. Parameshwara at the Vijay Diwas celebrations at the National Military Memorial here on Wednesday, to mark the victory of Indian forces in the 1971 Indo-Pakistan war.

“Allotting agricultural land to retired soldiers has been the practice since the days of the Mysore Maharajahs. But the practice has sadly been discontinued in recent years. We are willing to restart it if the soldiers come up with concrete proposals,” he said. — Staff Reporter

Cotton crop in Perambalur dt. nearly lost

We have incurred a huge loss just a month ahead of the harvest. Last year, we could sell the produce at Rs. 50 a kg but we do not hope to sell it even for Rs. 10 this year



A farmer applying urea in his cotton fields at Therani trying to save the standing crop.— Photo: B.Velankanni RaJ

otton crop has suffered extensive damage following heavy rainfall in the last fortnight, resulting in almost zero yield or yield with the poorest quality in the produce.

What is more distressing is the efforts of the cotton cultivators in either salvaging the harvested cotton by drying the produce in the sunlight or in saving the standing crop by applying some fertiliser, urea or spraying insecticide or pesticide, pinning hopes on restoring strength and sheen to the standing crop.

Cotton, mostly B-2 variety, has been grown on an area of 20,320 hectares, with Veppanthattai block accounting for a majority of more than 50 per cent of the crop. The average normal yield per acre is 10 quintals but this season not even one quintal could be realised, according to an official estimate.

Farmers incur a huge expenditure of up to Rs. 20,000 an acre and get an equal sum as revenue after marketing it at an average rate of Rs. 4,000 a quintal.

“We have incurred a huge loss just a month ahead of the harvest. Last year, we could sell the produce at Rs. 50 a kg but we do not hope to sell it even for Rs. 10 this year,” says K. Selvam and his wife Dhanalakshmi of Kaarai village who had immediately harvested the crop after a let up in the rain. “We salvage the available cotton so that it can be readily marketed. However, the quality is inferior,” they admit, pleading for adequate compensation from the State government.

Fertiliser everywhere

Visit any interior village in the cotton cluster of Veppanthattai or Irur block you can see a large number of farmers and agricultural labourers either transporting or applying some fertiliser, chemical, urea or pesticide in their fields.

“Based on our experience, we try to protect the crop at least for the next few weeks so that it could regain its sheen,” says Kunjithapatham, a cotton grower of Kolkkanaththam in Irur block. Navarathinam, another farmer of Therani, said he was applying urea to save the standing crop.

Scientists’ appeal

Farmers should desist from applying fertiliser or urea at this crucial stage and, instead apply cobalt chloride solution using one gram in 100 litres for an acre, says R. Kavimani, Professor and Head, Cotton Research Station, Veppanthattai, who has been visiting various rain-affected fields across the district for the past one week. He said that cotton could withstand drought condition and hence the continued stagnation of rain water in the fields had done more harm. “Roots suffocation has resulted in the poor nutrient intake. Further, it has caused in the formation of a toxic substance ethylene which further aggravated the growth and sheen of the cotton,” he said.

He said awareness camps were being organised among the cotton farmers to resort to foliar application in coordination with the Agriculture Department officials.

We have incurred a huge loss just a month ahead of the harvest. Last year, we could sell the produce at Rs. 50 a kg but we do not hope to sell it even for Rs. 10 this year

Students exhibit innovative models



A student from the government high school at Harwal of Jewargi taluk in Kalaburagi district explaining the working of the water recycling and conservation model at the District Science Exhibition in Kalaburagi on Wednesday. —Photo: Arun Kulkarni

Innovative exhibits designed by high school students were the cynosure of all eyes at the district-level science exhibition held in Kalaburagi city on Wednesday.

The programme was organised by the National Council of Science Museums, Department of Public Instructions, District Education and Training Centre, Kamlapur, and the District Science Centre, Kalaburagi.

Students from 48 high schools who had emerged successful at taluk-level science exhibitions showcased their models on topics such as health; nutrition and cleanliness; mathematics for quality life; disaster management; resources management; and industry and agriculture.

Students of the government high school in Harwal in Jewargi taluk designed a model on sanitation and cleanliness in rural areas.

The model of those from the government high school in Maragutti village was based on the role of mathematics in daily life.

Students of Nutan Vidyalaya Girls High School designed a model on converting solar energy into electricity and water harvesting and conservation of water.

The model on new technologies in farming sector exhibited by the students of Sharanabasaveshwar Residential Public School hogged the limelight.

Subhashchandra M. Gaddad of the microbiology department in Gulbarga University inaugurated the exhibition. Principal of DIET centre Rayappa Reddy and District Science Officer C.N. Laxminarayana were present.

Supplyco to procure paddy

Kerala State Civil Supply Corporation (Supplyco) is getting ready to procure 1,000 tonnes of paddy from the district by providing minimum support price to the farmers during the khariff season.

The paddy procurement began in the district from December 7 and Supplyco had procured nearly 250 tonnes at minimum support price of Rs.21.50 a kg, till Tuesday, Sairam Haridas, paddy marketing officer, Supplyco, Wayanad, told *The Hindu* . “We are planning to procure close to 1,000 tonnes of paddy during the current season, as against the 320 tonnes during the corresponding period last year,” he said.

As many as 1,245 farmers, who have cultivated paddy on 1,021.6 hectares, have registered under the paddy procurement scheme. The payment for procured paddy from the farmers in Kannur, Malappuram and Kasaragod districts till November 25 was disbursed on Tuesday, Mr. Sairam said adding that the payment could be disbursed to the farmers in the district in 20 to 25 days.

However, the Agriculture Department anticipated production of 34,520 tonnes of paddy from 8,630 hectares in the district during the current season as against the 36,800 tonnes from 9,200 hectares during the period last year.

Supplyco has procured 250 tonnes at minimum support price of Rs 21.50 a kg.

‘Safe food can prevent liver, GI diseases’

Unhealthy lifestyle and excessive fatty food are leading to an increase in cases of liver and gastro-intestinal diseases. While preventive measures need to be initiated on the one hand, early detection of these diseases is vital for damage control through drugs and lifestyle modification, according to gastrointestinal surgeon Sylesh Aikot.

“Timely intervention plays a vital role in reversing the problems. At the early stage, most of these diseases can be cured with drugs and lifestyle

modification. If this is not done, the affected persons head for invasive procedures such as endoscopy and surgery,” Dr. Aikot, Chief of Department of Gastrointestinal Surgery at Baby Memorial Hospital in the city, said on Tuesday.

Gastro Esophageal Reflux Disease (GERD), an acidic upsurge caused mainly by poor diet quality and schedule, could cause very serious ulcers in the food pipe.

Earlier, liver and gastrointestinal diseases treatment wings were separate as things were not as complicated as they are now. An increase in the cases of liver diseases due to alcoholism and viral infections contracted from unsafe water, and a host of related gastrointestinal diseases had forced a change of approach in the medical sector also.

“Our hospital will open an Institute of Liver and Gastro Sciences on Wednesday,” he told presspersons. “Across the world, hospitals have had to open comprehensive digestive diseases treatment centres wherever cases of liver and gastrointestinal disease have seen an increase,” he said.

One must understand that organs in the gastrointestinal system have a certain capacity. The liver and the intestine cannot take a load beyond their capacity.

“There is very little physical activity because of technology taking over many works that were done manually. Therefore, the body requires less energy. But, people are packing in a lot of food, especially with excessive fat. This is why we see a steady rise in the cases of digestive diseases,” he said.

Poultry sector cries out for help

Faced with the worst crisis for the past three years in decades, poultry farmers under the banner of the Telangana Poultry Federation (TPF) have sought a moratorium on loans for two years, supply of subsidised maize and soya and concessional power tariff on a long-term basis from the State Government.

At a briefing, TPF president Errabelli Pradeep Kumar Rao said that the grant of agriculture status to poultry farming would help sustain and further

develop a sector that provides pure and contamination-free, high-protein food that eggs and chicken represent. The TRS government had helped by supplying subsidised maize, concessional power and increasing the number of eggs in ‘Anganwadi’ centres, albeit temporarily. The mis-match between spiralling cost of feed and market price of eggs is dealing a body blow that needs urgent governmental assistance, he said.

National Egg Coordination Committee vice-chairman K.V.S. Subba Raju pointed out that in Telangana, that was No. 1 producer of eggs in the country, the cost of feed had gone up by 20 to 22 per cent over the years, vis-à-vis the price of eggs that grown only between 5 and 7 per cent.

This had made the business completely unremunerative, he said.

A kg of banana for Re. 1!



There is a glut of ‘pachbale’ variety of banana in the wholesale market in Mysuru.— PHOTO: M.A. SRIRAM

A kg of banana for Re. 1 to Rs. 1.50 a kg! Yes, it is a harsh reality for the farm sector that is under the mercy of traders as the prices of banana have crashed in the State owing to glut in production.

As the prices hit rock bottom in Davangere, farmers who were left high and dry chose to distribute their produce for free to students of schools and colleges, besides the general public in protest rather than selling them to traders.

It was a heart-wrenching sight as the anguished farmers grieved that they cannot even recover the transportation cost let alone the huge expenses

incurred on growing this one-year crop in the form of drip irrigation, fertilizers etc. that account for more than Rs. 1 lakh an acre.

Green fodder covers 1,000 acres in Ramnad district

The farmers are expected to produce 10,000 tonnes



ESSENTIAL MOVE:A farmer collecting green fodder at his field at Puthur in Ramanathapuram district.— Photo: L. BALACHANDAR

In a bid to offset fodder shortage in the coming months and sustain milk production, the Department of Animal Husbandry (DAH) has encouraged farmers to take up green fodder cultivation on about 1,000 acres of rain-fed areas in two divisions in the district.

As nutritive value of fodder is significant for productivity of livestock and increased milk production, the department has distributed free seeds and motivated farmers to cultivate hybrid sorghum redchari and protein-rich cowpea under State Fodder Development Scheme (SFDS).

Farmers in Paramakudi division have cultivated hybrid sorghum and cowpea on 700 acres and their counterparts in Ramanathapuram division have raised the fodders on 300 acres in 3:1 ratio, P. Ramasamy, Joint Director, DAH, said.

The 65-day fodders, meant for single cutting, were 20 to 30 days old now and they could be cut in another 35 days, he said, adding 1,000-odd farmers

were engaged in the cultivation and they were expected to produce about 10,000 tonnes of green fodder.

They were encouraged to cultivate cowpea as it had 25 per cent protein and helped them sustain milk production, he said.

Besides, the farmers in the two divisions had taken up cultivation of Co FS 29 sorghum variety and protein-rich desmanthus on about 150 acres of irrigated lands. The two varieties could be grown for three years with less water. The farmers could cut the fodder for at least four times a year, he added.

M. Balachandran, Deputy Director, said that the district's cattle population was estimated at around 85,000. After the distribution of 600 free milch animals to the farmers in the district, the daily milk production had touched 10,000 litres, he said.

He said that the department could not immediately address the menace of wild bulls destroying paddy and other crops in Sayalkudi area for want of gun and tranquilisers.

Bulls offered to a local Amman temple destroyed the crops during nights.

Antibiotic-free chicken for sale



A broiler chicken firm in Erode rearing birds free of antibiotics.— Photo: M. Govarthan

Taking cue from competitive pledges by multi-national fast food chains on offering antibiotic-free chicken before self-set deadlines, a poultry farm in Erode district has started offering such a product. The local company has

promised to offer antibiotic-free chicken for the first time in the country, a claim Animal Husbandry Department has not verified so far. Growth-promoting antibiotics has been debated as a cause for concern as it could result in health risks for consumers who have started fearing that conventional broiler chicken meat causes drug-resistant illnesses

The meat industry is reportedly unable to do away with use of antibiotics due to fear of running into losses. Scientific tests, on the other hand, have generated evidence of health risk to humans due to sub-therapeutics use of antibiotics in food animals. In its recent report, the World Health Organisation has expressed its intention to “reduce the overuse and misuse of antimicrobials in food animals for the protection of human health” and “terminate or rapidly phase out antimicrobials for growth promotion if they are used for human treatment.”

Tests have indicated that overuse of an antibiotic used to treat sick birds and protect them from E.coli infection has led to increase in treatment-resistant bacterial infections in humans.

The meat industry apprehends that avoidance of antibiotics would cause diseases, reduction in food safety, and loss in weight, thereby leading to rise in meat cost.

Nevertheless, there is no way for consumers to know whether or not the chicken they buy has been administered antibiotics.

As such, antibiotic-free chicken might imply value addition, perhaps, for fixing higher selling price, but the veracity of such claims could be checked only in well-equipped laboratories of TANUVAS at Namakkal and Chennai, Animal Husbandry Department officials said.

The Department has not entirely discounted the possibility of the claim being a marketing gimmick, though there was scope for increasing resistance of poultry through homeopathy and naturopathy medicines that do not cause any side-effects for humans.

59,000 cardholders get flood relief of Rs. 4,000

The district administration has identified as many as 59,270 families who have been affected by the recent floods in the district and all arrangements

have been made for the disbursement of a cash relief of Rs. 4,000 to each family.

The relief sum would be deposited in the savings accounts of the respective heads of the family.

Three categories

Explaining the procedure being followed for the disbursement of the relief here on Wednesday, E. Vallavan, District Collector, said the beneficiaries had been divided into two categories — those with bank accounts and the others who have not been covered under financial inclusiveness.

While 45,850 families had furnished bank accounts, the balance 13,320 persons were yet to open savings bank account with any bank.

Disbursement

Of the 45,850 account-holders, the relief had been credited in to the accounts of 21,980 persons on Wednesday.

The district administration would deposit the relief to the balance 23,870 account-holders by Friday, he said.

For 13,320 persons, special camp would be held at the Kamarajar Educational campus here from Thursday to Saturday and bank accounts would be opened as a preliminary measure.

He had appealed to these beneficiaries to immediately assemble at the campus where data entry operators would compile their details for opening the bank accounts.

“At any cost, the relief will be credited to the accounts of all the new account-holders within a week’s time,” the Collector said.

Mobile ATMs

The Collector said that mobile Automated Teller Machines would be operated in interior villages with a view to facilitating the people to withdraw the money.

A.M.H. Nazeem, MLA, on Wednesday, inaugurated the distribution of subsidised balanced nutrient fodder to the members of Dharmapuram Cooperative Milk Producers' Society. The subsidised relief aimed at ensuring quality milk production during the post-monsoon period.

CM inaugurates fish market



The renovated stalls inside the Goubert wholesale fish market, which was inaugurated by Chief Minister N. Rangasamy in Puducherry on Wednesday.— Photo: S.S. Kumar

Chief Minister N. Rangasamy inaugurated the renovated Goubert wholesale fish market on Jawaharlal Nehru Street here on Wednesday.

World Bank assistance

The modernisation work in the fish market was taken up by the Project Implementation Agency of the Puducherry government with World Bank assistance of Rs.1 crore. According to a release, the market has 180 stalls with separate areas for processing and cutting fish. Local Administration Minister N.G. Pannirselvam and Government whip G. Nehru participated.

Water level rises in Fort moat in Vellore

“Fifty per cent of rainwater has flown from Fort Maidan”

Water level in the moat has risen by four to five feet.- Photo: C. Venkatachalapathy

A trip to Vellore cannot be complete without a visit to the Vellore Fort. Now, tourists, and even Vellore residents, who visit the Fort on weekends, have an added reason to visit this archaeological site.

After being close to dry in the last few months, water level has swelled in the Fort moat following heavy rainfall during the month of November. The moat has a total depth of 15 to 18 feet, according to sources in the Archaeological Survey of India (ASI).



Dry before rains

“Water level has risen by at least four to five feet now due to heavy rain. The moat was almost in a dry state prior to the rain,” an official said. Due to silt formation, the depth of the moat varies from place to place around the Fort, with some places having a depth of eight to 10 feet, he added. The Fort is spread for a radius of around three kilometers.

However, the water has turned green now. “Fifty per cent of the collected is due to flow of rainwater from Fort Maidan. However, the remaining 50 per cent water has reached the moat from the Nicholson canal at the southern side of the fort. The canal carries waste-filled water. There was overflow of water in the canal following rain, and this has entered the moat,” he added.

Every year, the moat receives at least two feet of water following the seasonal rains in November. “This year, the water level is definitely more than previous years by at least three feet,” he said. Early this year, the ASI had taken up works to reconstruct a portion of the moat wall. Some parts of the moat wall around the fort had collapsed due to aging.

The old stones that had collapsed were used in the reconstruction. Officials said the work was completed in September.

Despite govt plan to reduce MEP, onion prices keep sliding

Increased production, loss of export markets being seen as key factors.



Despite the Centre's decision last week to reduce Minimum Export Prices (MEP) of onion by \$300 per tonne, prices of the bulb continue to slide across wholesale markets in Maharashtra and the country. Increased production and loss of export markets of Dubai and Sri Lanka to Egyptian traders this year are being cited as primary reasons for the downward spiral. With chances of the price stabilising appearing to be slim in near future, farmers are agitating across market yards.

Swabhimani Paksha MP Raju Shetti said the price crash resulted from a failure of Centre's agriculture policy. He said the Centre should have made the MEP zero in anticipation of excess production.

On Wednesday, trading at Nashik's Manmad Market Yard was suspended when traders took to the streets to protest against the dipping prices. The price of the bulb had come down to Rs 950 per quintal with 10,000 quintals of the produce arriving in the market. Similarly, Lasalgaon market saw the prices dropping to Rs 1,050 per quintal with 13,000 quintals arriving in the market.

Lasalgaon market, Asia's largest onion market — has seen a steady fall in the prices in the past few days. Onion price on this day last year was Rs 1,725 per quintal with 15,925 quintals of the produce arriving in the market.

In view of the fall in prices, the Centre on December 11 had decided to slash the MEP from \$700 to \$400. The decision came after onion prices came down by more than Rs 150 per quintal within a fortnight. However, this did not have the desired effect and prices continued to drop. The average price of the bulb Tuesday was Rs 1,200 per quintal and on Wednesday, it dropped to Rs 1,050 per quintal. All other onion markets are witnessing the same slide.

Though onion export from the country is minimal, low MEP helps keep domestic prices in control. During the 2014-15 fiscal, India exported 6,01,145.66 metric tonnes of onions worth Rs 1,112 crore. Between April and August this year, 2,99,113 metric tonnes of onion worth Rs 600 crore were exported. The Centre increased the MEP in June following price hike in the domestic market.

Nanasaheb Patil, chairman of Lasalgaon Market Committee, told traders: “Sri Lanka and Dubai are major markets for Indian exporters. With the Centre hiking MEP, those markets are lost. Egyptian traders are being preferred, although their produce is Rs 2 costlier than ours...” “Besides Maharashtra, late kharif arrival of onions have increased in Karnataka, MP and Rajasthan. Chances of a quick price correction are slim.”

Multi-crop practice: Amid gloom, two farmers have reasons to smile

With help from the district watershed mission, he dug a 50ft-50 ft pond. Last year, he managed to make a profit of Rs 40,000.

IN A district where assured irrigation is negligible and farmers are mostly focussed on either maize or paddy, a few farmers like Subran Gond in Lalpara village of Raighar block hold the key to successful multi-crop practice.

On his 1.3 acre land next to the Umerkote-Raighar road, the rich harvest of cauliflower, tomato, brinjal, chickpea, onion and tomato in Gond’s land is in stark contrast to the arid landscapes of the region. Apart from the vegetables, he has a pond where he grows freshwater fish and rears a few ducks as well. Six years ago, Gond and his two brothers jointly cultivated paddy and maize on the four acres of land they collectively owned. While the paddy was consumed by the 18-member family, they used to make about Rs 35,000 a

year from maize. But in a district where rainfall is the only source of irrigation, Gond and his brothers were always worried by failure in rainfall. In May last year, the young farmer dug a 50ft-50 ft pond, 95 per cent of which was subsidised by the State Watershed Mission. With water from the pond, he grew vegetables like bittergourd, cauliflower, cabbage, brinjal, radish, tomato and pea and made a profit of Rs 74,000 by selling the harvest in Chhatisgarh's Jagdalpur.

“In Jagdalpur, I sold brinjals from my farm at Rs 50 a kg,” said Gond. He also managed to grow 15 quintals of maize in the land, thanks to the water. Gond has also ventured into pisciculture in his small pond. He rears ducks, too. “The cabbage leaves from my farm go into the pond which is eaten by the ducks. I get fish from the pond as well as eggs from the duck. This year, I earned Rs 94,000 from my farm and pond,” said Gond.



Balram Gond standing before his crop of cauliflower and tomato. (Express Photo by: Debabrata Mohanty)

Across the road, 26-year-old BPL-farmer Balram Gond, too, dug a pond over 1.5 acres of land and started growing tomato, cauliflower, banana and beans apart from maize. “Till last year, we were doing only maize. But the money that we got was hardly sufficient to manage my 13-member family,” said Gond.

With help from the district watershed mission, he dug a 50ft-50 ft pond. Last year, he managed to make a profit of Rs 40,000. “I used to do only maize and earn a profit of Rs 30,000-35,000. Now thanks to the pond, I do maize as well as vegetables,” he said.

“In a district like Nabarangpur, the multi-cropping practices of farmers like Gond would minimise the risk of a crop failure. We are encouraging farmers to diversify from maize and paddy,” said district collector Rashmita Panda.

The biggest ingredient to farm success is, of course, assured irrigation. Under the Centre's Integrated Watershed Management Programme, the Nabarangpur administration has so far helped dig 1,057 ponds in seven of the 10 blocks in the district since 2009-10. "Each of the ponds can irrigate over two acres during Kharif season and 1 acre during Rabi season," said Panda.

Vegetarian diet more harmful for environment: Study

Eating the recommended "healthier" foods — a mix of fruits, vegetables, dairy and seafood — increased the adverse impact on energy use, water use and GHG emissions.



Lots of common vegetables require more resources per calorie than you would think. Eggplant, celery and cucumbers look particularly bad when compared to pork or chicken. (Source: Thinkstock Images)

Contrary to popular assumption — and a talk by actor Arnold Schwarzenegger at the United Nations Paris Climate Change Conference — eating a vegetarian diet could contribute more to climate change than eating a non-vegetarian diet, warns a new study.

Schwarzenegger, a former California governor, advised people to go meat-free one or two days a week to help protect the climate. But the new research found that consuming more fruits, vegetables, dairy and seafood is more harmful to the environment because those foods have relatively high resource uses and greenhouse gas (GHG) emissions per calorie.

“Eating lettuce is over three times worse in greenhouse gas emissions than eating bacon,” said one of the researchers Paul Fischbeck, professor at Carnegie Mellon University in the US. “Lots of common vegetables require more resources per calorie than you would think. Eggplant, celery and cucumbers look particularly bad when compared to pork or chicken,” Fischbeck said.

The study measured the changes in energy use, blue water footprint and GHG emissions associated with US food consumption patterns. The researchers studied the food supply chain to determine how the obesity epidemic in the US is affecting the environment. Specifically, they examined how growing, processing and transporting food, food sales and service, and household storage and use take a toll on resources in the form of energy use, water use and GHG emissions.

On the one hand, the results showed that getting our weight under control and eating fewer calories, has a positive effect on the environment and reduces energy use, water use and GHG emissions from the food supply chain by approximately 9 per cent. However, eating the recommended “healthier” foods — a mix of fruits, vegetables, dairy and seafood — increased the environmental impact in all three categories – energy use went up by 38 per cent, water use by 10 per cent and GHG emissions by 6 per cent.

The findings appeared in the journal Environment Systems and Decisions.

THE HINDU BusinessLine

Low prices, lack of overseas demand steal aroma off coffee

The new coffee season has begun on a tepid note for the Indian growers as prices for the mild and premium variety arabicas, currently being harvested, are almost lower by a fifth over corresponding last year levels. The farmgate price of the new arabica parchment is hovering between ₹7,700 and ₹8,000 per 50-kg bag compared to around ₹10,000 levels at the beginning of the season last year.

“The low price is a worry. The price for the new arabica is being quoted around Rs. 7700 in the last two days,” said Bose Mandanna, a grower at

Suntikoppa near Madikeri in Kodagu, the key coffee growing region in Karnataka.

Excess supplies

Attributing the current downtrend in prices to the excess global supplies, Mandanna sai, “the demand for Indian coffee is not there as it used to be earlier. Perhaps, the financial position of the consuming countries is also a playing a part.”

Though the pickings of arabicas began early this year in mid November, the cloudy weather that prevailed over the last couple of weeks has impacted the drying process of the beans. As a result, the new arabica crop has begun to hit the market, but in a trickle.

Crop size, picking

Trade sources expect the arrivals to pick up from early January. However, a section of the trade believes that the growers – mainly large and medium – may hold back their produce in anticipation of better prices. The picking of arabica beans is in full swing in the key growing regions of Coorg and Chikmagalur. “About 40 per cent of the picking is over in these regions,” said an official at the large multinational trading unit, who had visited these regions recently.

Based on the progress of the harvest in Karnataka, trade sources estimate that the current arabica crop in the State could be bigger by about 10-15 per cent over last year’s 74,755 tonnes. The Coffee Board, in its post monsoon estimates released on Tuesday, had placed the arabica crop for 2015-16 at 1.10 lakh tonnes, about 12.55 per cent higher than last year.

Slack exports

The lack of export demand is also influencing the domestic prices. After having burnt their fingers by selling coffee in advance last year, exporters are not aggressive on taking any positions. Normally, the exporters start booking orders from September and the order books tend to swell by mid-December. But this year the order books are very thin.

“We are at a tenth of what we had booked around this time last year,” said Ramesh Rajah, President of the Coffee Exporters Association. “We have never seen this thin order books in the last two decades,” he said.

Volatile prices

Further, Rajah said the slump in global commodities led by oil and gold is also influencing the volatility in coffee prices.

“Even at the ₹7,700-7,800 levels, the Indian coffee is still expensive compared to the Colombian variety that it directly competes with. As a result, buyers are waiting and watching,” said Rajah. The Indian coffee is commanding a premium of 30 cents per pound over the New York Terminal prices, while the differential (premium) for the Colombian variety is 10 cents.

However, Rajah said the drop in prices amid increasing cultivation costs is proving to be a double whammy for the Indian growers hurting their realisations. “Any price of below ₹9,000 per bag is difficult to break even,” Rajah added.

India exported 2.83 lakh tonnes of coffee valued at ₹4,900 crore in the financial year ended March 2015.

ISMA seeks financial restructuring of sugar industry

The sugar industry needs financial restructuring immediately, A Vellayan, President of Indian Sugar Mills Association (ISMA) said on Wednesday.

“The industry has incurred losses continuously in the last few years. The losses have been financed through extra loans by the banks or by the government. Most of the assistance from the government has been to pay cane price to farmers and has only added to the debt of the industry,” Vellayan said at the 81st Annual General Meeting of ISMA.

According to Vellayan, the debt burden of the industry has increased by over three times in just five years and currently stands at around ₹50,000 crore.

“A lot of sugar mills have become sick and several others have become NPA (non-performing asset) accounts,” he added.

Price stabilisation fund

ISMA also urged the government to take proactive steps toward setting up a price stabilisation fund for sugar as well as removing quotas on ethanol and molasses. “It is essential for this SY (sugar year) that the losses are compensated by the government indirectly. This can be done in the form of a price stabilisation fund and the government can make a direct transfer from this fund to farmers,” Vellayan said.

The fund can be funded through a cess on sugar and become active whenever sugar prices fall below production cost, he added.

“This will ensure a viable industry and farmers get their cane price on time,” Vellayan said.

Ethanol as fuel

Addressing ISMA’s AGM, Nitin Gadkari, Minister of Road Transport & Highways and Shipping, said the government will next month announce a policy to allow automakers to manufacture flexi-fuel vehicles in the country. “We are working on a policy on flexi-fuel vehicles. These vehicles can run entirely on ethanol, but also have option for petrol. I will make this announcement before January 26,” he said.

The Minister called upon the sugar industry to ramp up ethanol production in order to meet the increased demand. Currently, 130 out of 500 sugar mills are manufacturing ethanol in India but Gadkari said all the mills need to be converted for ethanol production.


“To increase ethanol blending to the 100 per cent level, sugar mills need to raise production capacity from the current level,” he said.

Areca co-operatives seek further curbs on imports

The arecanut co-operatives feel that the import of the commodity is taking place unabated, inspite of various controlling measures by the Centre.



Some of the cooperative leaders, along with the Members of Parliament from Karnataka, met the Union Minister of State for Commerce and Industry Nirmala Sitharaman, in New Delhi recently to explain this issue.

Arecanut import over the years					(In tonnes)
Year	Total Import	Bangladesh	Indonesia	Sri Lanka	
2011-12	73,953	55,478	7,431	2,485	
2012-13	99,701	87,403	2,489	3,817	
2013-14	80,478	37,202	2,261	14,074	
2014-15*	79,005	32,680	2,455	24,848	

(Source: Reply In Lok Sabha) *Apr-Dec

In a letter submitted to the minister, the heads of various arecanut co-operatives from Karnataka said that around 30,000 tonnes of arecanut landed in the country legally during April to November 2015. Traders take recourse in SAARC Preferential Trading Arrangement (SAPTA) for importing legally into the country. According to this, arecanut from Indonesia is exported to Sri Lanka and Bangladesh. Here, value-addition is made to the tune of 30 per cent by the importing country, which is having customs duty benefit if the commodity is exported to India. The co-operative leaders said that the import by such means causes a huge revenue loss to the country's exchequer.

Stating that India is self-sufficient in arecanut production, they said the commodity should be excluded from the Customs Tariff Notification of 1995 governing SAPTA. They also suggested that arecanut be placed in the

negative list of commodities while renewing Indo-Sri Lankan Free Trade Agreement.

There is surplus availability of arecanut due to the import. This is creating fluctuation in the market, they said. Representatives from Central Arecanut and Cocoa Marketing and Processing Cooperative (Campo) Ltd, Mangaluru; TSS (Totagars' Cooperative Sale Society) of Sirsi; and Malnad Areca Marketing Cooperative Society (Mamcos) Ltd met the minister.

It may be mentioned here that the Directorate-General of Foreign Trade had increased the minimum import price for arecanut from ₹110 a kg to ₹162 through a notification in June this year.

Standing Rabi crops toying with cold wave, dense fog, ground frost



A cold wave modified by ground frost and dense to very dense fog are now weighing in on Rabi crops in parts of North-West and Central India in what is the first instance of a 'combined charge' this year.

Shallow fog

An India Met Department update said that dense to very dense fog prevailed over east Uttar Pradesh during the morning hours of Tuesday.

Moderate to shallow fog drifted out over Himachal Pradesh, Punjab, Haryana, Chandigarh, Delhi, north Rajasthan, Bihar, Odisha and most parts of North-East India.

During the 24 hours ending on Wednesday morning, cold wave conditions prevailed in Haryana, Chandigarh, Delhi, South Rajasthan, East Madhya Pradesh, East Uttar Pradesh, Bihar, Saurashtra and Kutch.

It is on top of these that the Met is predicting ground frost on Wednesday and Thursday over Punjab, Haryana, Chandigarh, Delhi, and North Rajasthan where minimum (night) temperatures would remain 4 deg Celsius or less. Fog and ground frost strike mostly in tandem and have contrasting implications on Rabi crop which has already taken a hit from the warmer than usual winter this year.

Freezing point

Rabi wheat may be less sensitive to frost, but other crops such as mustard, gram and pulses are known to be extremely sensitive.

The vegetation will not necessarily be damaged on a night where the air cools down leaves to below their freezing point.

But once frost forms, it is possible that sharp ice crystals may damage leaf cells. Certain bacteria are known to be particularly effective at triggering frost formation.

Fog to persist

Fog is largely caused by advection (wind), a process in which moist air passes over cool ground and gets in turn cooled. Local winds blowing in from the hills (katabatic winds) slow down over the valley to produce convection, with the embedded moisture getting converted into fog.

Katabatic winds are those that flow from high elevations of mountains, plateaus, and hills down their slopes to the valleys or plains below. The outlook of the Met for the next five days has said that moderate to dense fog would occur at isolated place over Punjab, Haryana, Chandigarh, Delhi, Uttar Pradesh and Bihar.

Tea exports up 4% in value; dip in S India production drags overall output

Tea exports have seen an over four per cent increase (in value terms) during the seven month period from April to October this year to over ₹2,318 crore. The corresponding figure for the same period last year stood at ₹2,225 crore (approximate).

According to provisional data released by the Tea Board of India, exports in quantity terms increased by 7.25 per cent to 119.25 million kg (mkg) during these seven months against 111.19 mkg in the year-ago-period.



Increase in exports has been seen in major tea importing countries such as Russia, United Kingdom, Netherlands, Germany, Poland, UAE, Iran, Bangladesh and Pakistan.

Dip in production

The period also saw a minor dip in production (of less than one per cent) to 946.49 mkg. Production in the April to October period of 2014-15 stood at 953.59 mkg.

The fall in production was mainly reported in South India. Production there dipped to 148.58 mkg (155.8 mkg). North India, however, saw a 0.08 per cent increase in production to 798.39 mkg (797.79 mkg).

Auction prices

However, the tea sold at the various auction centres all over India saw an over three per cent dip, despite production going up (by a marginal 0.5 per cent).

Auction price (all India average) stood at ₹128.35/kg (132.45) during April to October this fiscal.

Prices across both North and South India auction centres saw a dip. Price in the North Indian auction centres stood at ₹148.48 (152.71), while in the South centres it was at ₹78.59 (81.37).

Bought leaf factories

According to the Tea Board data, production of bought leaf factories (BLF sector) increased on an all India basis by nearly 2 per cent to 310.58 mkg.

The increase is mainly on account of the BLF sector's increase in production in North India to 249.23 mkg for the period under review. In the corresponding period last year, it was 242.14 mkg.

South India, however, witnessed an over four per cent decrease in production, with BLFs producing 148.58 mkg (155.8 mkg).

Gujarat announces Rs. 110/20 kg bonus for cotton growers

The Gujarat government on Wednesday announced Rs. 110 per 20 kg bonus for the cotton growers in the State. As per the announcement, cotton farmers will get additional Rs.110 per 20 kg on the Minimum Support Price (MSP) of Rs. 810/20 kg when sold to government procurement agency, Cotton Corporation of India at its depots.

Farmers in Gujarat faced heavy losses as market price of cotton fell sharply due to China cutting down on its purchases from India.

After frequent representations by farmer bodies like Bhartiya Kisan Sangh (BKS) and farmer leaders, the state government formed a committee of ministers under the leadership of Chief Minister Anandiben Patel. "It is expected that cotton growing area in the State is likely to be around 2.76 million hectares this year with an estimated cotton output of around 8.5-9 million bales (of 170 kg). In the view of this and to provide good market price for cotton growers, the State government has decided to give Rs.110 bonus to the farmers from the State Budget," said the spokesperson minister Nitin Patel.

Farmers selling cotton at the CCI depots will be entitled to get this bonus, which puts the price at Rs. 920 per 20 kg or Rs. 4,600 a quintal of raw cotton.

The benefit will be applicable from December 18, 2015 for all procurement made under CCI.

It's wrong to deny gas to the fertiliser sector



The manner in which gas is allocated within the fertiliser sector smacks of arbitrariness. The Centre gives a uniform subsidy to all manufacturers, including those of decontrolled complex fertilisers, under the Nutrient Based Scheme (NBS).

Why, then, does it use a different yardstick for allocation of gas to manufacturers of urea on the one hand and decontrolled fertiliser on the other?

A two-judge bench of the Delhi High Court has ordered the government to resume supply of natural gas to Deepak Fertiliser and Petrochemicals Corporation (DFPCL), a manufacturer of decontrolled phosphatic fertilisers, which was arbitrarily suspended last year.

The bench has stated that gas supply to DFPCL will continue till the government finalises the guidelines on supply of gas to fertiliser companies.

Now, the questions

Why is the government averse to supplying gas to manufacturers of decontrolled fertiliser – or worse, denying domestic gas only to some manufacturers in this category?

In other words, within the complex group, why did it deny supply only to DFPCCL even while continuing supplies to Gujarat State Fertilisers and Chemicals Limited (GSFCL) and Rashtriya Chemicals and Fertilisers Limited (RCFL)?

The Department of Fertilisers (DoF) on whose recommendation ministry of petroleum and natural gas (MPNG) allocates gas, argued that manufacturers of ‘decontrolled’ fertilisers are free to fix maximum retail price (MRP).

Therefore, even if they use imported LNG (liquefied natural gas) which costs more, they can recover higher cost of production by increasing MRP. On the other hand, manufacturers of urea are not free to fix MRP which is under ‘statutory’ control.

Cheaper domestic gas being in short supply is reserved exclusively for urea manufacturing units so that its production cost and subsidy outgo (excess of cost over MRP) can be kept low.

Affordability matters

The DoF’s argument is flawed. ‘Controlled’ urea or ‘decontrolled’ complex fertilisers or decontrolled MOP (muriate of potash) are essential plant nutrients. These have to be used in proper balance for getting optimum results.

Consequently, all categories of fertilisers including complex fertilisers have to be ‘affordable’ to farmers and no particular group can be singled out for preferential treatment (or discrimination).

DFPCCL, RCF and GSFC use gas for making ammonia, which when combined with phosphoric acid yields complex fertilisers.

In this backdrop, denial of domestic gas will force them to use costlier imported LNG, increasing production cost. In the face of ‘uniform’ subsidy

(or NBS), they will either have to increase MRP or stop production. Either way, farmers will be penalised.

As regards denial of gas only to DFPCL, the DoF's logic is that it produces only complex fertilisers whereas RCF/GSFC have integrated urea and complex operations and are government undertakings. This is absurd and reminiscent of pre-reform era of 1970s and 1980s when policies were guided by 'pick and choose'.

Check vested interests

The absurdity crosses all limits when having continued domestic gas supply to RCF/GSFC, the DoF treats resultant saving in cost as a bonanza and decides to mop up. The decontrolled segment of fertiliser industry faces a bigger threat.

This arises due to vested interests from sectors such as power and steel challenging "top priority" status hitherto enjoyed by fertilisers in allocation of gas.

Fertiliser companies already face diminished supplies (courtesy, virtual drying up of supplies from the KG-D6 field) and if the government acquiesces to pressure tactics, this will further reduce allocation for fertiliser industry.

Juxtaposed with the DoF's flawed policy (gas to be reserved only for urea units) there won't be any gas left for manufacturers of decontrolled fertilisers, not even for its favoured undertakings.

The government should take urgent steps to end this policy mess. It should maintain top priority for use of domestic gas in fertilisers where it yields maximum national economic advantage.

Second, it should ensure its supply to manufacturers of all fertilisers without discrimination. Finally, the process of gas allocation should be entirely 'policy driven' eliminating scope for discretion.

The writer is a policy analyst

DECCAN Chronicle

Food rationing makes one hungrier: study

Washington: If your meal times are restricted, you may end up learning to eat more as a new study suggests that food rationing boosts hunger hormone, according to a new study.

The University of Southern California study found that rats with restricted feeding schedules learn to eat more, helped by the "hunger hormone" ghrelin. The insights could be valuable for helping the researchers develop new effective weight-loss therapies.

Lead author Scott Kanoski said that they are looking deep into the higher order functions of the brain to unpick not just which hormones are important for controlling humans' impulses but exactly how the signals and connections work.

The current study provides a rare insight into the way ghrelin communicates with the central nervous system to control how much food is consumed. The hippocampus, a region of the brain that controls memory and motivation, is understood to be linked to the way that anticipation of food can increase intake.

The system uncovered here is that ghrelin communicates with neurons from the hippocampus to stimulate appetite and allow a large amount of food to be eaten in a limited amount of time. These neurons then communicate with another part of the brain, the hypothalamus, to produce the molecule orexin, which further promotes hyperphagia, or excessive eating.

"Over a third of Americans are obese and another third are overweight, so we feel we have an obligation to help identify new ways to reduce the burden on society and on our healthcare systems," added Kanoski.

The study is to be published in the journal eLife.

Europe's genetically edited plants stuck in legal limbo

Scientists frustrated at delay in deciding if GM regulations apply to precision gene editing.



But the future of his work depends on the European Commission's answer to a legal conundrum. Should it regulate a gene-edited plant that has no foreign DNA as a genetically modified (GM) organism?

Jansson, who works at Umeå University in Sweden, says that he will drop his experiments if the plants are classed as GM, because Europe's onerous regulations would make his work too expensive and slow. He and many others are anxiously awaiting the commission's decision, which will dictate how they approach experiments using the latest gene-editing techniques, including the [popular CRISPR–Cas9 method](#).

The commission has repeatedly stalled on delivering its verdict, which will apply to edited animals and microorganisms as well as plants. It now says that it will make its legal analysis public by the end of March. Swedish authorities, meanwhile, have told Jansson that unless the commission specifies otherwise, they will not require his cress to be subject to GM regulations.

Genetic editing

The legal limbo is having a big impact on research, says René Smulders of the plant-breeding division at Wageningen University and Research Centre in the Netherlands. He says that this year, he was rejected for a European Union grant — on changing the composition of a plant's oils by editing a gene — because referees were concerned about the legal uncertainty. “Some scientists hesitate to start using the new methods in case they end up being regulated and their research projects hit a dead end,” he says.

At issue is the interpretation of a 2001 European Commission directive on releasing GM organisms into the environment, which covers field trials and cultivation. It defines GM organisms as having alterations that cannot occur naturally, which were made by genetic engineering.

What is unclear is how this relates to experiments, such as Jansson's, in which researchers introduce foreign DNA to direct a precise edit in a plant's own genetic material but then use selective breeding to remove the foreign gene. The final plant has a few tweaked nucleotides, but cannot be distinguished from a wild plant that might have acquired the same mutation naturally — so it cannot be traced in the environment as EU regulations require.

Many EU member states — including Sweden — have conducted their own analyses of the directive, and argue that it should not apply to edited plants that do not contain foreign DNA. But some non-governmental organizations (NGOs) hostile to genetic manipulation have produced analyses that conclude the directive should apply because genetic engineering is involved. Academic scientists and seed and crop companies fear that plants made with the latest gene-editing techniques may share the fate of conventional GM plants in Europe. Strict regulations, cumbersome bureaucracy and activism against GM organisms have meant that scientists in some countries, such as Germany, do not even attempt field trials. The regulations have increased the costs of bringing a GM crop to market, and many European nations do not allow such crops to be cultivated at all. That is frustrating for plant scientists who want their work to be useful to the world, says Jonathan Jones, a plant researcher at the Sainsbury Laboratory in Norwich, UK.

“We hoped that the new plant-breeding techniques would offer ways of achieving the same outcome without the onerous regulations — and fear that might not turn out to be the case,” he says.

Many countries outside Europe do not face the same uncertainty, because they regulate GM organisms according to the nature of the product, not how it was made. In the United States, gene-edited crops containing no foreign genetic material are assessed on a [case-by-case basis](#). In 2004, the biotechnology company Cibus, based in San Diego, California, was told that the US Department of Agriculture would not need to regulate its herbicide-resistant oilseed rape, made with an earlier form of gene-editing. Its crop is [now cultivated in the United States](#). (The White House did, however, begin a review of all US biotechnology regulation in July.)

Since 2011, Cibus has asked six countries — Finland, Germany, Ireland, Spain, Sweden and the United Kingdom — whether they would consider its crop to come under the scope of the EU directive. Without guidelines from the commission, each conducted its own analysis and said that it would not. Cibus has now done field trials in the United Kingdom and Sweden, but it put its activities on hold after the commission sent a letter to all EU member states on 15 June, asking them to wait for its legal interpretation.

Whatever the commission decides, it is likely that either a member state, an NGO or a company will sue — meaning that the European Court of Justice may make the final, binding decision on the matter.

Many plant scientists do basic research, so their gene-edited plants never need to leave the greenhouse. But Jansson must plant his cress outside to test its photosynthetic abilities in natural conditions. With his country’s approval, he plans to plant the crop in the spring. “Lawyers talk and talk — I think it is important for Europe to have a test case,” he says.