

Sparrow numbers up, thanks to residents' efforts



chirpy news: With increased awareness over the past few years, the sparrow population has considerably improved—
Photo: S.R. Raghunathan

A small garden near the Elliot's Beach police booth is at the centre of attraction in Besant Nagar, every day. Normally, the kilometre-long road along the beach is busy from 5.30 a.m., with

walkers and joggers frequenting the place.

Once the people get back home, tiny birds come out and spend some time in the garden, foraging for feed. All thanks to the efforts of Sadhana Rajkumar, a resident of 28 Cross Street, Besant Nagar, who has taken pains to earmark the space for feeding the birds.

Sharing her experience with *The Hindu* on the occasion of World Sparrow Day, Ms. Rajkumar said with support and encouragement from a Corporation assistant commissioner, she developed a sparrow garden in a small area in front of the police booth at the beach.

"We have put up a separate enclosure for these birds with water and space for mud bath. Everyday, between 7.45 a.m. and 8.30 a.m., I bring a jar of foxtail millet to feed the sparrows that come to the garden."

Feeding sparrows has become an everyday ritual and part of her lifestyle. It is a pleasure to see the sparrows taking to the nest boxes, she said. "Watching sparrows come and spend some time in the garden is a sight to behold," she said.

If this is the case in Besant Nagar, in Virugambakkam, G. Mullaivanam of Tree Bank Trust is distributing sparrow homes free of cost to bird lovers.

Mr. Mullaivanam said his organisation began free distribution of sparrow homes on March 1. A total of 475 homes have been distributed by their Trust in Chennai, Tiruvallur and Kancheepuram districts.

K.V. Sudhakar, president, Madras Naturalists' Society, said with increased awareness among city residents over the past few years, the sparrow population has increased considerably. Sparrows are seen across several localities in the city, especially in north Chennai.

Many people show a keen interest in feeding grains and water to these tiny birds, which has helped in boosting their numbers, he said.

Good Samaritans share their experiences on World Sparrow Day

Farmer moves High Court against bank

MADURAI, March 21, 2014 - The Madras High Court Bench here on Thursday sought the response of the Madurai Collector to a public interest litigation petition accusing the Tiruvadavur branch of a nationalised bank of refusing to issue loans to sugarcane farmers.

A Division Bench of Justices V. Ramasubramanian and V.M. Velumani directed a Special Government Pleader to ascertain the Collector's response by Monday.

C. Dhamayanthi (67), a farmer from Tiruvadavur, had filed the PIL petition through her counsel K. Mahendran.

The petitioner claimed that the bank had stopped granting agriculture loans even to genuine farmers ever since it received complaints that some individuals had defrauded the bank by raising loans on false claims.

Have a nest and attract sparrows



Students' bid to conserve a bird species

residents wanted: A student fixing an earthen pot nest for sparrows on a tree on The American College campus in the city on Thursday.— Photo: G. Moorthy

MADURAI, March 21, 2014 - Waking up to the chirping of sparrows might be a distant dream for many. But on World Sparrow Day, which was observed on

Thursday, the Green Club of The American College was determined to bring about a difference.

The students placed around 30 earthen pots filled with straw and grains of millets on different trees on the college campus.

“With the population of these small and brown birds fast dwindling, we have a responsibility to take steps to conserve and protect the species,” said M. Rajesh, Assistant Professor of Zoology at the college and Tamil Nadu Coordinator of ‘Mahiru’ Foundation, which has been actively involved in the conservation of sparrows across the country.

“They have spearheaded an initiative under which cardboard nest boxes are provided to people who can keep it in their houses for sparrows,” explained Karunyal Samuel, Dean, and coordinator of Green Club. “When a nest box is placed in the house with a bit of straw and a bowl of water and grains near it, it is sure to attract sparrows, if there are any in the area,” she said.

Many members of Green Club stationed themselves at Arapalayam bus stand, Periyar bus stand, Goripalayam and Keezhavasal to distribute nest boxes to the public.

“We want to take the message of sparrow conservation to the public and distribute these nest boxes and pamphlets free of cost,” said E. Iniyan of the Commerce Department.

Many factors are attributed to the dwindling population of house sparrows.

Lack of open spaces, rise in the number of high-rise buildings, increasing use of pesticides and insecticides on fields and gardens and rising levels of pollution are some.

“While there is a ban on smoking on our campus, we try to avoid burning garbage or dry leaves since it might chase away nesting birds from the trees. There have been sightings of nearly 10 to 15 sparrows on the campus given the vast number of trees here,” said Principal Davamani Christofer.

Awareness programme on organic food

MADURAI, March 21, 2014 - Voice Trust conducted an awareness programme on organic food consumption at The American College here for the girl students of the National Service Scheme on Tuesday.

A press release from the trust said students were advised to take proper breakfasts to be active throughout the day and to avoid eating fast food and bottled cool drinks.

Students were asked to consume fresh fruits, vegetables and millets for healthy mind and body, the release added.

Around 200 students took part in the event, the release added.

How the past gives food for thought about quality

PUDUCHERRY, March 21, 2014 - At a time when the Government of India is encouraging food business owners to register with the Food Safety and Standards Authority of India till 1973, the eateries in Puducherry had a completely different set of rules to abide by to ensure food quality.

The municipality permit issued by the French still hangs on the walls of the Café Lune on Suffren Street, almost 50 years after it was issued.

In those days, the rules were different and the people were willing to obey them. Now, very few of the restaurants and cafes that were run during the French time are still open, and even if they are, the original owners have passed away and the people who run it now do not remember how things were back then, owner of the café G.M. Anwardeen says.

Until 1973, the Pondicherry Municipality under the mayor was in control of the issue of licences to the various restaurants, bars and cafes. It was only after 1973 that the Union Territory started following the Indian Government's rules, retired municipality official Rajkumar Gupta said.

Medical certificate

Unlike what is required today, during the French period, if one wanted to run a hotel establishment, they would have to get a medical certificate from a Government doctor who would not only inspect the kitchen but also the staff.

These doctors would check the eyes, finger and toe nails, hair and skin of the employees. If anyone on the staff had filariasis, which was very common during the time, the entire premises would be sealed.

Similarly, the establishment would not get a permit if the employees had skin problems, and many times if the nails of the employees were too long, the doctors would have to conduct another visit before issuing the permit.

According to Ramani, who used to run a tea stall during the French period on M.G. Road said, the rules were different for roadside stalls and for restaurants.

For roadside restaurants, even if they served food, they would only have to pay tax for the area and there were no special inspections, he said.

During the French period, government doctor would inspect the kitchen and the staff

Good response to tea auction

UDHAGAMANDALAM, March 21, 2014 - The special pan-India auction of the teas which had competed in The Golden Leaf India Awards: Southern Tea competition evoked a good response, said C. Shreedharan, convener, organising committee.

The competition which was a joint initiative of the United Planters Association of Southern India (UPASI) and the Tea Board was being conducted over the last nine years and it has helped in strategically positioning the South Indian tea brand by highlighting its regional attributes. The 10th edition of the competition is now under way.

The auction, which was aimed at consolidating the South Indian teas brand and giving a commercial touch to the promotional initiative was held on Wednesday at Coonoor.

It was inaugurated by R. Ambalavanan, Executive Director, Tea Board.

A total of 239 lots, including 157 leaf grades, and 82 dust grades with a total volume of 80,329 kg were on offer.

The participation of buyers from various centres was good, he said adding that in the leaf category 113 lots comprising 31,273 kg were sold with an average price realisation of Rs. 161.86.

In the dust category 63 lots comprising 22,917 kg were sold with an average price realisation of Rs. 137.11.

Average price

The combined average price realisation was Rs. 151.39 a kg.

Hailstorms, debt deal crushing blows to Maharashtra farmers



Rajendra Lomte

OSMANABAD, March 21, 2014 - Rajendra Lomte thought a good crop this year would help clear his debts and leave him enough savings to get married. Instead, his 12-acre mango field in Deolali village was wrecked by a powerful hailstorm in early March. It lasted for just half an hour but damaged all the trees and killed the budding fruit.

Burdened with losses worth Rs. 5 lakh, the 34-year-old farmer had no answer for banks' repeated calls for repayment of his loan. On March 12, he emptied a bottle of petrol on himself and set himself on fire.

The educated farmer, a postgraduate,

died on March 18, one of the casualties of the unseasonal rains and hailstorms that have swept through 28 of Maharashtra's 35 districts over the last month.

The calamity has destroyed over 19 lakh hectares of crop so far. At least 38 farmers have committed suicide across the State since February 22, when the hailstorms struck. Six of these suicides have been reported from Osmanabad.

"We had faced a drought in 2013 and were hoping for a good crop this year. We thought we could compensate for last year's losses till the hailstorm hit," said Mr. Lomte's younger brother Kamlakar.

Fearing a backlash from farmers in the coming polls, the Maharashtra Cabinet has approved a special package of almost Rs. 4,000 crore for the affected region. It has also asked the Centre for relief worth Rs. 5,000 crore. However, with the model code of conduct in force, any aid needs approval from the Election Commission of India. Meanwhile, farmers are getting frustrated. Mahadev Mali, who lost grapes worth Rs. 18 lakh said no help was forthcoming from political leaders, who disappeared after electioneering. "Whatever help the government has announced will not really help. Waiving interest is not enough, they should have waive our loans," said Mr. Mali. Osmanabad collector Dr. Prashant Narnavare said, "We have submitted details on crop destruction to the government. The relief will be disbursed shortly."

Anil Kulkarni, 49, resident of Alani village, committed suicide by jumping into a well on March 15.

Threats from local moneylenders pushed him over the edge. His elder daughter, Anuja, was preparing for her Class-X exam when she heard the news.

Postgraduate farmer Rajesh Lomte committed suicide after his crops were destroyed by the storm

Farmers grill Central team members over delay

TENALI, March 21, 2014 - Angry farmers confronted the Central team visiting the cyclone affected areas in Tenali revenue division on Thursday.

A three-member Central team consisting of Superintendent Engineer, Quality Control, A. Krishna Prasad, R.P Singh and K. Rama Varma began their tour by visiting Itha Nagar here. Farmers, agitated over the delay of visit, stopped the Central team. Even as Joint Director of Agriculture V. Sridhar was trying to pacify, they continued to resist the team.

“What is the purpose of the visit, nearly five months after Cyclone Helen destroyed crops? Did you consider the reports sent by the district administration on the damages?” one of the farmers questioned the team members.

Later, they visited Kolliapara mandal where they inspected the damages to Maize, Banana and other horticultural crops.

District Collector S. Suresh Kumar explained that crops in 46, 234 hectares were damaged in the district.

Collector Suresh Kumar says crops in 46,234 hectares were damaged in Cyclone Helen

Water woes leave farmers in tail-end areas jittery

VIJAYAWADA, March 21, 2014 - *No water in Srisailam reservoir for irrigation; Nagarjunasagar has a paltry 12 tmcft*

With the harvest of rabi crop getting delayed this year, Krishna delta farmers, particularly those in the tail-end areas are in jitters. While, technically, no water is available in Srisailam reservoir for the purpose of irrigation, the water available in Nagarjunasagar for the same purpose is a paltry 12 tmcft.

While this is the scenario of the water availability in the two large reservoirs on the Krishna, the delta farmers are worried that no water would be available when the crop needs it most.

Rabi has been sown in nearly 2.65 lakh hectares this season and it would be the middle of April or beginning of May for it to be ready for harvest.

Paddy farmer Vishal Rao, who has land in the tail-end area of Mopidevi mandal, told *The Hindu* that there was water in the canal on Thursday, but there was no guarantee that it would be available on Sunday.

Some farmers had sown the short-duration variety of paddy that required 120 days (1100 variety), some had gone for the 130-day (1075 variety) and some others had gone in for the 140-day (BPT-5204) variety.

Harvesting of rabi crop which should have been completed by March-end but was delayed because of three weather systems lashing the coast consecutively.

No reply

Agriculture Joint Director V. Narasimhulu said that he had made a written request to the government for release of water till April end. Though there was no reply from the government he hoped that water would be released.

Meanwhile, precedence seems to be for power generation over irrigation. The low levels and zero inflows did not stop APGENCO releasing water from the Srisailam reservoir for power generation.

Water level

The water level in Periyar dam stood at 110.50 feet on Thursday with no inflow and a discharge of 100 cusecs. The level in Vaigai dam was 30.82 feet with no inflow and a discharge of 40 cusecs. The combined Periyar credit was 729 mcft.

Rainfall recorded in the

24 hours ending at 8.30 a.m. on Thursday (in mm): Shanmuganadhi 3, Uthamapalayam 7, Veerapandi 4, Vaigai dam 4.6 and Kodaikanal 3.2, according to the Public Works Department.

The water level in the Mettur dam stood at 48.87 feet on Thursday against its full reservoir level of 120 feet. The inflow was 133 cusecs and the discharge, 600 cusecs.

Water level in the Papanasam dam on Thursday stood at 49.60 feet (maximum level is 143 feet). The dam had an inflow of 51.97 cusecs and 204.75 cusecs of water was discharged from the dam. The level of Manimuthar dam stood at 73.03 feet (118 feet). The dam had an inflow of 28 cusecs and 100 cusecs of water was discharged.

Kanyakumari - The water level in Pechipparai dam stood at 7.65 feet, 37.05 feet in Perunchani, 3.05 feet in Chittar I, 3.15 feet in Chittar II, 3 feet in Poigai and 42.08 feet in Mamabazhathuraiyaru.

Bitter gourd for diabetes management

Experiments with the vegetable's extract on humans and animals on: expert



Wonder vegetable: Michael B Krawinkel from the Institute of Nutritional Sciences, Germany, giving a presentation at the conference on bitter gourd at ICRISAT, Patancheru, Medak district, on Thursday.-- Photo: Mohd. Arif

PATANCHERU (MEDAK DT.), March 21, 2014 - Bitter gourd has been helpful in checking diabetes to a large extent, said experts at the two-day conference on bitter gourd which commenced at the International Crops Research Institute for

Semi-Arid Tropics (ICRISAT) in Medak district on Thursday.

The vegetable can be widely used in the prevention of the illness as well as disease management, they said.

Experiments on

Addressing the gathering, Prof. Michael B. Krawinkel, Institute of Nutritional Sciences, International Nutrition and Nutrition Medicine, Germany, said bitter gourd was endowed with properties to address diabetes and cancer-related health problems. However, experiments to scientifically ascertain facts are still on.

Referring to Ayurveda, Prof. Krawinkel said that bitter gourd was recommended to people with diabetes. "We are experimenting with bitter gourd extract on humans as well as animals. Around 90 persons from Southern India and 52 from Tanzania had been using the vegetable in the prescribed format and we are expecting the findings in the next couple of

months,” Prof. Krawinkel told *The Hindu* . Informing that in the first phase of study it was observed that blood glucose levels were slightly reduced among patients, he expressed confidence that in the next two years they could be in a position to reduce the quantum of medicine by diabetics.

Prof. Ming-Shi Shiao of the Department of Biomedical Sciences, Chang Gung University, Taiwan, said that consuming 500 gm to 1,000 gm of bitter gourd per week would check diabetes, while the general consumption was only 100 gm per week now. He suggested consuming bitter gourd in the form of soup.

Dr. Kalpagam Polasa, Director, National Institute of Nutrition (NIN), said that the use of bitter gourd was referred to in the ancient text *Charaka Samhita* .

The programme was presided over by Dr. Warwick Easdon, Regional Director, AVRDC-The World Vegetable Center, Asia.

In the first phase of study it was observed that blood glucose levels were slightly reduced among patients

A dairy hostel for poor rural women

The project is an inclusive social business model aimed at nurturing women entrepreneurs



Cows enjoy clean environment and healthy fodder throughout the year at the dairy project at Lakshmipuram in Veerulapadu mandal of Krishna district.— Photo: V. Raju

VIJAYAWADA, March 21, 2014 - They have turned into social entrepreneurs by designing a farm-based ‘Bottom of Pyramid’ project -- a dairy hostel, for the poorest of the poor rural women.

The project, Healthy Farm Products Pvt. Ltd., set up in the quaint ambience of Lakshmipuram village under Veerulapadu mandal of Krishna district, is conceived by Chennupati Vazeer and Madhav Kshatriya. The former has a transport background while the latter had been dealing with sales and marketing sector.

“India is home to a large bovine population and yet we have low milk productivity. More importantly, marginal farmers are migrating to cities, thereby bringing down the milk supply,” says Mr. Kshatriya blaming what he calls ‘inept and unsustainable Government policies and schemes.’ “Cooperative movement is good but inadequate,” he says adding: “Our marginal farmers lack access to technology. We at the farm here have introduced best practices to ensure quality milk,” informs Mr. Vazeer, talking about the care taken about the animal comfort, feeding process and the cutting-edge technology used to milk the animals. The dairy farm is home to 200 cows and 60-odd calves. The animals are kept in hygienic environs and fed on high-protein silage, a blend of greens, dry matter and high energy components.

Pointing to a dirty-looking tractor, Mr. Kshatriya informs that it is used to clean up the place. “All the dung is pushed into a dung pit at the end of every row, which is later shifted to a digester of a bio-gas plant.

Giant pits

The farm is also equipped with three giant pits, each packed with about 1,000-1,200 tons of silage. This is to ensure high quality fodder to the animals throughout the year.

Milking parlour is a technology-equipped section which allows utmost hygiene besides displaying on a monitor the yield of each cow.

The dairy hostel is an inclusive social business model aimed at nurturing women entrepreneurs in the hugely opportune dairy sector in the days to come.

“More importantly, it creates an ecosystem which lets the women afford and access modern technology when they are integrated. The major objective is to stop farmers migrating to cities and to extend socio-economic value to rural women. We want to create at least 1,000 women entrepreneurs in a span of 10 years who can make a decent living and may create jobs for many others,” says Mr. Kshatriya.

📌 **Dairy farm is home to 200 cows and 60-odd calves**

📌 **‘Project aims to create at least 1,000 women entrepreneurs in 10 years’**

hindustantimes


Weather

Chennai - INDIA






Today's Weather

	Friday, Mar 21
	Max Min
Clear	31° 22°
Rain: 0	Sunrise: 06:14
Humidity: 89	Sunset: 06:19
Wind: normal	Barometer: 1013

Tomorrow's Forecast

	Saturday, Mar 22
Partly Cloudy	Max Min
	33° 26°

Extended Forecast for a week

Sunday Mar 23	Monday Mar 24	Tuesday Mar 25	Wednesday Mar 26	Thursday Mar 27
				
34° 23° Partly Cloudy	35° 24° Partly Cloudy	28° 22° Overcast	29° 23° Overcast	28° 23° Overcast

THE TIMES OF INDIA

Kovai celebrates World Sparrow Day

COIMBATORE: Various programmes were held and initiatives undertaken as part of the 'World Sparrow Day' in and around the city, including seminars and distribution of leaflets and nest boxes by several voluntary organizations.

The idea is to ensure that sparrows are protected and conserved. There have been reports of the decline in the number of sparrows especially in cities.

Some voluntary organizations distributed nests and provided cans used to feed water to the sparrows. Taking cue from such efforts, similar activities were held in educational institutions and public places.

NI Jalaluddin, the President of Nature Conservation Society said they distributed nests in schools and public places. "We spoke to people about the importance of conservation and how they could help the conservation efforts. Keeping a simple nest on rooftops requires little effort but goes a long way in conserving these birds," he said.

Students from the zoology department of PSG College of Arts and Science held a seminar and distributed pamphlets to students.

V Anitha Raj Lakshmi, a final year BSc Zoology student gave a presentation on measures to conserve sparrows. They came up with a map which showed more than 100 locations in Coimbatore which showed the presence of sparrows in the city.



Herbal cure for cattle diseases

SUMMARY

Punjab vet varsity develops drug for mastitis, ointment for wounds.

Using medicinal herbs, scientists of Guru Angad Dev Veterinary and Animal Sciences University have developed a herbal drug to treat mastitis, a cattle disease widespread in India. Another drug they have developed treats cattle wounds.

Where the drugs differ from commercial products is that they leave no side-effects and cost much less.

Mastitis causes inflammation and abnormalities in the cattle's udder area with symptoms like redness, swelling, hardness and pain at critical stage. The milk of infected animals turns watery, or even into flakes and clots that make it unfit for drinking.

Talking to The Indian Express, vice chancellor of GADVASU V K Taneja said, "In India, due to mastitis dairy farmers incur losses estimated at over Rs 7,000 crore annually. There are a number of medicines available but they all are chemical-based. A variety of germicides such as iodine, chlorhexidine, sodium hypochlorite, etc have been tried successfully as teat dips in preventing these infections. But one major concern that remains with these is the possible passing on of disinfectant residues into the milk. Hence, herbal drug as teat dip may be the best answer. Even WHO has emphasised the use of medicinal plants for curing mastitis as they are safer than synthetic drugs."

While teat dips for mastitis in the market cost over Rs 500, the university estimates the price of its herbal drugs will be around Rs 300. The price of herbal ointment to heal wounds, too, will be around half that of synthetic alternatives.

Taneja added, "We have identified and evaluated some herbs for their antibacterial, anti-parasitic and fly repellent qualities. One such herb, evaluated in terms of minimum inhibitory concentration, was found to have antibacterial quality against common animal disease pathogens such as Staphylococcus aureus, Escherchia coli, Salmonella typhimurium, Listeria and Bacillus cerius."

Asked about plans to launch these products, he said, “We are looking for pharmaceutical companies who we can tie up with and launch these products commercially.”

During trials in the varsity dairy farm, the post-milking use of herbal teat dip was found effective in preventing clinical mastitis and in lowering occurrence of new intra-mammary infections.

“The presence of mastitis-causing organisms and drug residues of mastitis therapy in milk poses a threat to consumer health,” said Taneja.

The herbal ointment prevents contamination besides healing wounds in cattle and buffalo calves. Comparative trials with other herbal products showed that the time required to heal wounds with the two preparations was almost similar, indicating the high efficacy of the newly developed herbal product.

Work is also in progress on herbal disinfectants for animal sheds and hospitals. While common herbs like lemon-grass, aloe vera, turmeric and neem have been used in products, the university chooses not to disclose other “rare” herbs used as ingredients. “We have grown them in small quantities for trials in our herbal garden,” said Taneja.

When fields turn gold

SUMMARY

In mustard season, Kashmir notes it needs to produce more.

The yellow flowers have started to blossom at the first sign of warmth after a long spell of cold. Farmers of Kashmir are at work in their fields, which had been covered under snow during most of the winter.

“If you see these mustard fields, they look beautiful around this time. Winter here lasts six months and during that season no work takes place because of the snow. We have started working after six months,” says Mohammed Ismail of Bandipora.

The valley has been trying to meet an oilseed deficit by bringing more and more land under mustard cultivation. Agriculture department officials The Indian Express spoke to did not specify the demand-supply gap but said they expect six to seven quintals per hectare from 86,000 hectares, and projected a 20 per cent jump in yield since last year.

The snow that held up farming can also be a boon, because it means a better crop. The snowfall was particularly good in the winter just ended. “The snowfall this time was healthy, there was enough water for the fields and the produce will be good,” Ismail says.

“This will be Kashmir’s first produce from Kashmir after the winter,” he adds. That makes mustard a key crop and the government has taken up various measures to promote its cultivation and help farmers.

Altaf Andrabi, seed officer in the Department of Agriculture, says mustard growers get 33 per cent subsidy on the crop. “We have 86,000 hectares land under mustard cultivation, which yields six to seven quintals per hectare. We give 33 per cent of subsidies on high-yield varieties and this year we have provided farmers 1,200 quintals with Rs 8 lakh in subsidies to them,” Andrabi says.

Mustard is an annual crop. Sowing is done in the months of September and October. Once winter ends, the rising temperature causes the rapeseed-mustard crop to blossom, and harvesting is done in towards the end of May.

Mustard is sown as one half of double cropping. “Mustard is sown as a double crop with paddy and the variety sown is usually KoS 101,” Andrabi says.

Apart from its aesthetic value — tourists during the mustard season are fascinated by fields that turn the valley golden — mustard oil is used in most local dishes and is also consumed as it is considered good for health.

The medicinal values notwithstanding, not all farmers are keen to go for large-scale cultivation as the turnover is low in comparison to other crops.

“Mustard gives farmers just Rs 1,000, which in turn leads to less agricultural land under mustard,” says Andrabi, explaining why the the state has been struggling to meet its oil

demand. "The state is already short in oilseed production and the yield from the mustard fields is low as cultivation is not extensive," Andrabi says. Farmers prefer to grow mustard only when the field is not occupied by other crops, or just before the paddy plantation season. It gives them the benefit of crop rotation, which replenishes the soil and prepares it for paddy cultivation, says Ghulam Nabi of Ganderbal. India has nearly 4.5 million hectares under mustard production, followed by China, Canada, Poland, France and Pakistan.

Branded for export



Vegetables like coloured capsicum (above) are in high demand.

SUMMARY

Certification allows Punjab farmers to send vegetables abroad, feeds local demand too.

Punjab's farmers are exporting vegetables with a GlobalGap certification, a declaration of better produce and a promise of higher profit.

The certificate is an acknowledgment of a good agricultural technique and has so far been given to four to five Punjab farmers, with some other aspirants in queue.

To get the brand name for their vegetables, farmers need to maintain hygiene standards for labourers, adopt specified agriculture methods, and ensure an annual audit is conducted by the company.

Retired IAS officer Karamvir Singh Sidhu is among those who has set the example. He has been exporting snow peas, sugar snaps and lady's fingers to Australia, the UK and the Netherlands with the GlobalGap certification. This summer, he will export okra for the first time to Japan.

Sidhu, who has been farming since 2001 when he was still serving in Punjab, is now a wholtime progressive farmer at Lalgarh village in Patiala, having retired in 2012. Apart from farming on his 100 acres land, he also stocks up exotic vegetables collected from farmers of nearby areas and which he then exports. "I export exotic vegetables and had a turnover of about Rs 1.25 crore about five years ago. This year I am confident I will cross the Rs 5 crore mark," says Sidhu.

Sidhu's products are exported by Patiala Horticulture Private Ltd, of which he is the CEO. "As of now we have branded our peas Patiala Peas, while we are yet to brand our other vegetables. We maintain the books and use chemicals as per instructions of the company," he says.

Some Namdhari farmers and a group of potato farmers in Jalandhar, too, have the GlobalGap certification.

A group of farmers from Mushkabad village in Ludhiana district is in the process of getting the certificate and they plan to export lady's fingers and snow peas from next year.

Davinder Singh, one of these farmers, says they are growing exotic vegetables which have

seen a growth in demand not only in the domestic market but also abroad. The farmers do the grading and packing before sending the vegetables out in the market with the brand name Quality Veg Produce.

Meharbaan Singh, Sikander Singh and Lakhwinder Singh are in the same group growing vegetables. At the moment they are growing coloured capsicum, cucumber, green chillies in polyhouses, and they also engage in open farming of seasonal vegetables.

Davinder was honoured recently at a function organised by PAU Farmers' Club for earning Rs 7 lakh per acre from his farm.

"We need to pick the vegetables from the fields 10 days before sending them out in the market in order to minimise chemical residue effects. These are the standards demanded by the companies that seek vegetables from us for export," says Davinder. With the growing demand, even domestic buyers are seeking quality vegetables, he says. This has made certified vegetables or branded products a trend.

To encourage diversification, Punjab Energy Development Authority has a project of five pack houses, each built at Rs 1.08 crore, with two of these in Patiala and one each in Ludhiana, Hoshiarpur and Gurdaspur. The power connections from Punjab State Electricity Power Corporation Ltd are, however, commercial ones while farmers are demanding connections under a special agriculture policy that would mean the tariff being slashed 30 per cent and the exemption of a minimum monthly charge. The pack houses have been given on lease to farmer societies for 20 years at Rs 20,000 per year. Says K S Pannu, secretary for agriculture, "We have taken up the matter with PSPCL so that the farmers can get agriculture connections instead of commercial connections."

Though farmers grow exotic vegetables for export as well as for the domestic market after maintaining the required standards, they get subsidies from PEDA and Punjab Agro for freight, packaging and getting an annual audit done from companies. Only farmers who maintain their books regularly and send monthly information to PEDA or Punjab Agro qualify for both central and state subsidies.



Crop Insurance Should Cover All Farmers

Unseasonal rains and hailstorms have savaged the crops of farmers, especially in central and western India. While Madhya Pradesh, Maharashtra and Punjab are the worst affected, Rajasthan, Uttarakhand, Gujarat, Haryana and Andhra Pradesh are also severely affected. Many of these crops— chana, lentils and wheat in MP, mustard in Rajasthan or onions and grapes in Maharashtra—were due for harvesting. Compounding their plight is the onset of the Lok Sabha poll. The model code of conduct prohibits any special relief package on the ground that it could influence voters. Even if the Election Commission allows it the state and district administrations have no time due to their preoccupation with the elections. Issues like assessing the extent of crop damage and compensation to be paid to individual farmers are unlikely to receive top priority. Effectively, real and substantial support is very improbable over the next few months and the plight of farmers in the states cannot but be alarming.

The crisis underlines the need for a proper crop insurance scheme that triggers automatic payments for losses from natural disasters. Such a mechanism should be independent of elections or government attitude. Agriculture is inherently risk-prone and susceptible to the vagaries of nature. The present National Agricultural Insurance Scheme is woefully

inadequate in meeting natural challenges. The process is bureaucratic and by the time the farmer gets his claim, it is often too little too late.

We need to shift to a system where insurance is mandatory for receiving compensation against crop loss. Strangely, at present it is compulsory only for farmers who have taken loans. It also operates on an “area approach”. A farmer isn’t eligible for indemnity unless the taluka or block area in which the farm falls is declared calamity-affected. Legitimately, claims should be assessed on the basis of individual farmers against the “area approach”. The arrangement should be a matter between the farmer and the insurance company, subject to regulation. The state can chip in to subsidise premiums if needed.

THE HINDU Business Line

New Tea Board norms cut use of pesticides

Kolkata, March 20: The Tea Board has introduced Plant Protection Code for implementing practices to minimise use of pesticides and improve quality of tea.

PPC is a set of guidelines framed by a technical committee comprising members from the tea industry, Tea Research Institute of UPASI Tea Research Foundation, Tea Research Association, international certification bodies and the Trustea Advisory Committee.

According to a Tea Board statement, these guidelines are aimed at ensuring best practices for crop protection across Indian tea plantations.

Effective adoption of the PPC would enable the industry to safeguard the plantation environment, ensure welfare of workers and small farmers and long-term security of supply, Siddharth, Chairman of Tea Board, was quoted saying.

The code complements existing regulations, such as the Food Safety and Standards Act, 2006.

Campco expands cocoa procurement network to AP

Mangalore, March 20: The Central Arecanut and Cocoa Marketing and Processing Cooperative (Campco) Ltd has extended its cocoa procurement network to Andhra Pradesh. The cooperative opened a cocoa procurement centre at Elur in West Godavari district recently.

Suresh Bhandary, Managing Director of Campco, told *Business Line* that farmers in some districts of Andhra Pradesh grow cocoa as an intercrop in palm and coconut plantations. The cooperative has signed an agreement with the Pedavegi Primary Agricultural Credit Society (PACS) in West Godavari district to purchase cocoa from farmers in the region. Based on the potential in the State, Campco may think of opening cocoa purchase centre in East Godavari district also.

The cooperative gives first preference to buy cocoa through PACS. If PACS are not there, then it may have to think about opening its own branch, he said.

The cooperative requires cocoa for its chocolate manufacturing unit at Puttur in Dakshina Kannada district. Karnataka and Kerala contribute a major share to Campco’s requirement.

The annual production of cocoa in Andhra Pradesh is estimated at around 4,000 tonnes, he said, adding that the cooperative had purchased around 1,200 tonnes of cocoa through private traders in the last season.

Campco had purchased around 2,600 tonnes of cocoa from Karnataka and Kerala in the last season.

The country produces around 12,000 tonnes of cocoa every year. Though Andhra Pradesh is contributing to the production now, the availability is coming down from regions such as Kerala, he added.

Coffee growers to gain more from Brazilian woes

Chennai, March 20: Coffee growers in the country will continue to reap gains from this year's Brazilian drought until the third quarter of next year as the South American nation's crop will take time to recover.

"Brazilian growers say that they faced the worst drought in January-February. Next year's crop has also been affected due to this," said Bose Mandanna, a planter from Kodagu and former vice-chairman of Coffee Board.

Brazilian crop

Brazil coffee production this year is likely to be 10 per cent lower than last year's 49.6 million bags (60-kg each). Some of the Brazilian areas received only 10 per cent of the rainfall they require during the crucial period for the crop development.

"Domestic prices have increased to a three-year high due to Brazilian drought. The crop next year there could be even worse since its growth has been affected," said Nishant R Gurjer, a grower and a trustee of the Karnataka Planters' Association.

"This is an 'on' year for Brazilian coffee and the crop has been hit. Next year is 'off'. So, you can imagine the situation," said Anil K Bhandari, former president of the United Planters' Association of Southern India.

Coffee is a crop whose production is good one year, called the 'on' year, and bad the next, called the 'off'.

Hot spell

The damage to the current crop in Brazil is irreversible with the coffee growing areas going through one of the hottest periods in recent years.

"The record high temperatures have made the plant suffer so much that the branches cannot yield the next crop," said Bhandari. The reproductive buds will be stunted due to this, Mandanna said.

Brazil is due to receive the showers only during August-September that will help blossoming of flowers in coffee plants. With a dry period set to follow in April-May, chances for crop recovery are bleak.

"In Brazil, coffee is not grown in shades as in India," said Mandanna.

Firm prices

Global coffee prices are up over 60 per cent this year. Prices, in fact, have dropped after nearly doubling last week, as speculators booked profits.

Currently, Arabica coffee for delivery in May on ICE US, New York, is quoting at \$1.82 a pound. Robusta for the same month is ruling at \$2,110 a tonne in London.

"Prices will rule firm because from a surplus of about 3.5 million bags, we will see a deficit of at least four million bags," said Bhandari.

"Though rains are expected in Brazil this week, there is no clear picture on the exact loss. The outlook will remain bullish," said Gurjer.

"Any fall in coffee prices could only be a correction. It enjoys a good support at levels of \$1.56," said Mandanna.

"It will be difficult to make up for a bad year when coffee consumption is rising fast. We have to see how the deficit will be made good," said Bhandari.

Consumption pattern

Coffee consumption is rising rapidly in India at eight per cent annually, while it is increasing 6.5 per cent a year in China. "In the US, coffee consumption is growing two per cent every year," said Bhandari.

Indian growers have benefited a lot from the Brazilian problem.

"We started the season in November by selling Arabica parchment at Rs. 6,500-6,700 for a 50-kg bag. Now, we are getting Rs. 11,700. Similarly, robusta parchment, sold at Rs. 5,000 a bag at the season's start, is fetching Rs. 8,000 now," said Bhandari.

"We are getting Rs. 4,100 for a bag of robusta cherry. We had initially got Rs. 2,800," said Mandanna.

Growers, however, have been unable to take full advantage because the Brazilian problem cropped up only in February. By that time, 80 per cent of the domestic Arabica crop and 30 per cent of the robusta crop had been sold off, said Mandanna.

Arabica harvest takes place during November-December, while that of robusta is January-March.

Output, exports

Indian growers have been helped by higher production, though growers dispute the Coffee Board's estimates. For the current season to September, coffee production has been estimated at 3.11 lakh tonnes (lt) against 3.18 lt a year ago.

According to provisional figures, exports since January have increased to 78.819 tonnes from 68.257 tonnes during the same period a year ago.

"Indian growers can expect to get good prices for their crop next season starting October.

For the 2015 crop, the price could be at least decent," Bhandari said.

"Our growers should benefit since the 2014-15 crop looks promising as of now," said Gurjer.

"Our only problem is the rising cost of production, especially on the wage front," said Mandanna.

'Create neutral incentives to boost output'

Ashok Gulati, former chairman of Commission for Agricultural Costs and Prices, said the Government should create a neutral incentive structure for all crops, including maize, to boost output. Addressing the India Maize Summit 2014, Gulati, who is currently Chair Professor for Agriculture at ICRIER, said Government policies should support scaling up production of quality protein maize. He said for sustainable growth of maize, it was essential to propagate the crop as animal feed and enlarge the export basket. The India Maize Summit was organised by NCDEX and FICCI.

Samir Shah, NCDEX MD and CEO, said price signals from NCDEX maize futures had ensured that benefits from increased consumer and industrial demand were translated into fair returns for small farmers. NCDEX is looking forward to closely working with the maize, starch and poultry industries to create platform for collaboration and integration, he added.

At Rs. 1,551/kg, Avataa tops in special golden leaf tea auction

Coonoor, March 20: Fetching Rs. 1,551 a kg, Avataa Green tea topped the special auction of the teas contesting in The Golden Leaf Indian Awards: Southern Tea Competition, a joint initiative of UPASI and Tea Board.

“We conducted this pan-India e-auction on UPASI Commodities Exchange Ltd (UCEL) platform.

Of the 80,329 kg offered, 54,190 kg were sold fetching an average price of Rs. 151.39 a kg. The leaf grades fetched an average price of Rs. 161.86 and dusts, Rs. 137.11,” C Shreedharan, Convener, Organising Committee, said. “Avataa Green Tea, marketed by Paramount Tea Marketing, fetched the highest price in the auction when RJ Tea Corporation bought it for Rs. 1,551 a kg. Last year also, we topped the Golden Leaf auction. We have also fetched the highest value of Rs. 1,89,222 from 122 kg because of this speciality tea,” G Udayakumar, Director, Bluegate Beverages which manufactures Avataa, told *Business Line*. Chamraj Green Tea, marketed by Forbes and Co., fetched the next highest price when Nisha Enterprises bought it for Rs. 1,001. “History was created by Vigneshwar Speciality teas with Super Red Dust (Rs. 351), Broken Orange Pekoe (Rs. 250) and Broken Orange Pekoe Fannings (Rs. 241) as they topped not only the auction but fetched the highest price for the grades concerned ever since manufacturing starting in this factory,” auctioneer Ravichandran Broos, General Manager, Paramount Tea Marketing, said. Chamraj (Rs. 280), marketed by Forbes, and Chundavurrai (Rs. 226) marketed by J Thomas and Co., topped orthodox leaf category.

Spot rubber declines with futures

Kottayam, March 20: Physical rubber prices turned weak on Thursday.

The market lost ground in the absence of follow up buying as the domestic futures declined on the National Multi Commodity Exchange.

Sheet rubber surrendered to Rs. 148.50 (Rs. 149.50) a kg, according to traders. The grade slipped to Rs. 148.50 (Rs. 149) and Rs. 145.50 (Rs. 146) respectively as reported by the Rubber Board and dealers. April futures declined to Rs. 148.40 (Rs. 149.89) May to Rs. 151.59 (Rs. 152.90), June to Rs. 153.75 (Rs. 154.98), July to Rs. 154.90 (Rs. 155.76) on the National Multi Commodity Exchange. March futures closed at ₹246.1 (Rs. 147.13) on the Tokyo Commodity Exchange.

Spot rubber rates (Rs. /kg): were: RSS-4: 148.50 (149.50) RSS-5: 145 (146) Ungraded: 141 (142.50) ISNR 20: 142.50 (143) and Latex 60%: 111 (111).

Ukraine crisis to boost India's maize exports

New Delhi, March 20: Geo-political tensions arising out of problems Ukraine is facing after a political upheaval are seen fuelling demand for Indian maize (corn). With exports picking up in recent weeks after a rather muted start to shipments in the current marketing year starting September, demand prospects look good.

The trade is hopeful that maize shipments will exceed initial estimates of three million tonnes on renewed interest from overseas buyers, aided by a price rally. India had exported a record 4.8 million tonnes (mt) last year, but shipments this year began on a sluggish note and were seen as unviable due to weak international prices.

“With the turmoil in Ukraine, corn from the Black Sea region is facing logistics hurdles, triggering demand for Indian maize. Concerns over dry weather impacting the crop in the US, the largest producer, have also aided the recent price rally, making Indian shipments viable,” an official at a multinational trading firm said.

Corn prices have moved up by about 15 per cent from early January this year till now, but the strengthening rupee could pose a challenge.

Raju Choksi, Vice-President, Anil Nutrients Ltd, said exports were better in February on a rebound in demand.

However, overall exports are still expected to be lower than last year at around three million tonnes.

Trade sources said exports in March were expected to be about five lakh tonnes, more than twice the February shipments that stood at 2.1 lakh tonnes. In January, shipments were estimated at 1.8 lakh tonnes.

Choksi said domestic demand from starch and poultry feed makers has been good and rabi production will also boost supplies, exerting pressure on prices.

According to the Agriculture Ministry's second advance estimates, maize production this year is likely to be 23.28 mt against the final output of 22.25 mt last year.

"In the short term, export prospects look good for Indian maize. However, in the long term, India will have to compete with US, Latin America and Ukraine," said Tejinder Narang, grains trade analyst.

Business Standard

Govt may suspend wheat export

The recent unseasonal hailstorms have reduced India's chance to get an advantage from rising global [wheat](#) prices, since the government is looking at suspending [exports](#), for fear of crop losses.

The ongoing stand-off between Russia and Ukraine over Crimea has reduced wheat transportation from the world's two largest European suppliers to the world. So, prices have risen eight per cent or \$20 a tonne in a month, to \$274 a tonne in the London markets. Ukraine exports around half its annual output; in 2013, this was 21.5 million tonnes.

Last year, too, when global wheat prices rose to over \$300 a tonne, India could not benefit through export although it had excess grain. This was due to abnormal delay in policy decisions. At present, as mentioned, the government plans to suspend wheat export, even before achieving the target of two mt.

"The decision is underway. The ministry of food has already taken a decision; it will communicate soon to the Food Corporation of India ([FCI](#), the government's procurement and storage agency)," said an informed source.

By the time the goof ministry opened export in August 2013 and set up a shipment target of two mt until June 2014, wheat prices crashed to \$260 a tonne. Consequently, wheat export tenders floated by state trading agencies [PEC](#) and [MMTC](#) (for wheat from FCI) got a poor response. As against the average realisation of \$300 a tonne for its over four mt of wheat

export in 2012-13, FCI got a tepid response even at \$260 a tonne.

India has already accepted bids for 1.4 mt of wheat export so far this year, of the two mt target. The aim at the time it was set was to earn Rs 3,400 crore from export at an average of \$300 a tonne.

Sources said assessment of the crop damage was yet to be done. Hence, the government had decided to suspend

export temporarily. In case of insignificant damage, these can be be opened again, to meet the target.

WHEAT EXPORTS

Financial year	Quantity (tonnes)	Value (₹ cr)
2010-11	397	0.70
2011-12	740,747	1,023.27
2012-13	6,514,815	10,529.01
2012-13*	4,313,932	6,759.02
2013-04*	4,162,354	6,831.48

Wheat is a fully rabi crop, sown between October and December for harvesting between March and May. Before the hailstorms, the Karnal (Haryana)–based Wheat Research Institute forecast the country’s output at 95.6 mt this year, compared to 92.46 mt in the previous year.

“Private sector players have already signed contracts for execution in coming months. These will continue,” said D P Singh, president of the All India Grain Exporters Association. Meanwhile, PEC and MMTC had floated three export tenders for a cumulative 105,000 tonnes, to be shipped next month.

Maize buyers lose Rs 50 a quintal due to multiple intermediaries: KPMG

India's [maize](#) sector, which includes the poultry feed segment, stands to gain Rs 50 for every quintal of the commodity purchased directly from farmers, compared with the same purchased through traders or brokers, a study by global consulting firm KPMG showed. The study, released at the Indian Maize Summit here on Thursday, noted the industry is not able to procure the commodity directly from farmers due to fragmented land holdings, although there has been phenomenal growth in maize in India at the rate of 5.5% from 2004-05 to 2013-14.

The growth has come largely on the back of increased use of hybrid seeds, so much so that studies show that by 2050, almost 90% of the country's maize area will be under these seeds.

Consumption of the commodity rose four% during 2004-05 to 2013-14, while the acreage increased by 2.5%.

India [exports](#) over three million tonnes of maize a year, which is expected to rise further. However, exports have been constrained by 20-30% after harvest losses. "India might export around four million tonnes of maize in 2014-15," said Sain Dass, president of India Maize Development Association. Exports in 2013-14 is pegged at 3.6 million tonnes. According to the study, India should take advantage of its geographical location and explore exporting maize to countries such as Japan, Korea and China. Currently, the US, Brazil and Argentina are the top exporters to these destinations. At present, almost 80% of Indian maize is exported to Vietnam, Indonesia and Malaysia.

"Domestic prices play a critical role in determining demand for maize. If the domestic price is higher than those prevailing globally, the demand of maize for export will decrease, resulting in lower production," said Ashok Gulati, chair professor of [agriculture](#), ICRIER and former chairman Commission for Agricultural Costs and Prices.

In 2013-14, the minimum support price of maize was fixed at Rs 1,310 a quintal, the same as paddy, to encourage farmers in northern India to shift from paddy to maize.

Maize demand in India is prevalent all through the year, but its supply is highly skewed as over 77% of its annual production of 22-23 million tonnes come during the kharif season. "There is a potential to increase the production of maize during the rabi season as well in the coming years. The rabi maize has a higher yield of four tonnes per hectare as against 2.5 tonnes in the kharif season," the study noted.

Sugar mills' fortunes set for early revival

[Sugar](#) mills are set for revival, with their returns improving with high market prices and the export subsidy announced by the government. Open market prices has risen 12-14 per cent in the past two months; futures prices are 14.2 per cent higher.

These should, say observers, bring back sugar companies on a profit path from next year; most mills are expected to make operating profits from the June quarter.

A sugar industry official says mills were losing around Rs 4 a kg till early February; they're still losing Rs 1-1.50 a kg.

After the government announcing a subsidy for exporting raw sugar, trading activity has been warming up and even futures have seen participation on the National Commodity and Derivatives Exchange ([NCDEX](#)) after a long while. Open interest and volumes have been going up on the exchange.

Abinash Verma, director-general, Indian Sugar Mills' Association, said, "The subsidy being given by the government for two sugar seasons for incentivising production and export of raw sugar has been helping mills cut their losses and in the months to come, the changing fundamentals will help reducing farmers' arrears and a return to viability."

Till even a month earlier, mills were making losses of around Rs 4 a kg; it is now estimated at Rs 1.5-2 a kg.

SUGAR STATISTICS (Kolhapur variety)			
Week ended	Price (₹/quintal)	Open interest (tonnes)	Avg turnover (₹ cr)
Feb 1	2,643.00	85,530	20.47
Feb 8	2,679.00	81,610	36.38
Feb 15	2,750.00	75,630	58.97
Feb 22	2,817.00	73,570	45.85
Mar 1	2,769.00	86,030	49.90
Mar 8	2,890.00	105,900	87.71
Mar 15	2,966.00	122,380	155.10
Mar 20	3,006.00	111,560	102.79

Price & open interest are at the end of the respective week; turnover is daily average for the the week
Compiled by BS Research Bureau

Open market prices however are still 20 per cent below the peak of August 2012. Verma said in the current sugar season, 1.2 million tonnes had been exported till February-end. A further 700,000-800,000 could be shipped till September. [Isma](#) has cut the production

estimate for sugar season 2013-14 (October to September) from the earlier 25 mt to 23.8 mt. Exports and the cut in production will help stabilise the industry's. The summer season, when demand from cola and ice-cream makers rises, will help.

Says B B Mehta, chief executive, [Dalmia Bharat Sugar](#) and Industries: "The industry's financial position is improving, with the subsidy and follow-up improvement in ex-factory prices. Strengthening of international prices after Brazil reduced its earlier crop estimates and the reducing surplus in the domestic market is also expected to help show better numbers."

In recent weeks, sugar unsquared contracts on NCDEX have risen 40 per cent; average weekly volumes have quadrupled from early February's levels.

Palm oil down 1.5% on profit-booking

[Crude palm oil](#) futures prices fell by 1.52% to Rs 587.60 per 10 kg today, after speculators booked profits at prevailing higher levels amid subdued spot demand.

At the [Multi Commodity Exchange](#), crude palm oil for delivery in March declined by Rs 9.10, or 1.52%, to Rs 587.60 per 10 kg in business turnover of 198 lots.

Similarly, the oil for delivery in April traded lower by Rs 9.10, or 1.52%, to Rs 589.10 per 10 kg in 414 lots.

Analysts said besides profit-booking by speculators at existing higher levels and subdued demand in the spot market also influenced crude palm oil futures prices.

Potato up 0.8% on limited supply, high demand

[Potato](#) prices rose by 0.83% to Rs 1,211.90 per quintal in futures trade today as speculators enlarged their positions supported by firming trend in spot market amid restricted arrivals.

At the [Multi Commodity Exchange](#), potato for delivery in April surged by Rs 10, or 0.83%, to Rs 1,211.90 per quintal with a business turnover of 111 lots.

Potato prices for delivery in March also jumped up by Rs 8.90, or 0.75%, to Rs 1,194 per quintal, with trading volume of 20 lots.

Marketmen said increased buying by speculators on pick-up in spot market demand against restricted supplies from the major producing belts, mainly led to the rise in potato prices at futures trade.

Cardamom down 0.3% on higher supply

[Cardamom](#) futures prices today fell by 0.37% to Rs 824 per kg as speculators reduced their positions due to adequate stocks in the physical market on higher supply from producing belts.

Besides, profit-booking by speculators at prevailing higher levels too put pressure.

At the [Multi Commodity Exchange](#), cardamom for delivery in April declined by Rs 3.10, or 0.37%, to Rs 824 per kg in business turnover of 260 lots.

Similarly, the spice for delivery in May traded lower by Rs 2.60, or 0.30%, to Rs 855 per kg in 50 lots.

Market analysts said offloading of positions by traders amid profit-booking, mainly helped cardamom futures to trade lower.
