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THE HINDU

TNAU to establish 10 seed vending machines

The Tamil Nadu Agricultural University (TNAU) will install 10 seed vending machines in various parts of the State. The moves comes following the success it had seen with the machine installed near its campus on Marudamalai Road in January last year, says K. Ramasamy, Vice Chancellor.

As part of the farmers' day celebration in 2014, the University had installed the machine at a cost of Rs. 2.30 lakh to dispense lady's finger, chilli, greens, cluster beans, brinjal and a few other vegetable and fruit seeds to encourage people take go in for kitchen garden and terrace garden.

The machine vends the seeds in small packets, each priced at Rs. 10.

The objective was to help residents, who otherwise have to purchase seeds in packets that are meant for farmers, points out M. Bhaskaran, Special Officer, Seeds, TNAU.

The University will install the vending machines in the Secretariat and Anna Nagar in Chennai, at a farmers' market (Uzhavar Sandhai) in Coimbatore, Theni, Madurai, Salem, Kiillikulam, Tiruchi, Tiruvannamalai and Pudukkottai.

People may walk into the vending centres, insert a Rs. 10 note, chose the seed they want from the menu displayed on the screen and then collect the packet. At any point in time, the vending machines can hold 1,000 packets of 32 varieties of seeds. In the past, the University has sold 20,000 packets for Rs. 2 lakh.

Mr. Bhaskaran says that the seeds come with the TNAU certification and that ensures quality. And the University does so to comply with the provisions of the Seeds Act. Towards this end, the University has taken steps to store the seeds in the right temperature and humidity. This happens 24X7. Whenever the machine dispenses packets, it has been programmed to send messages and alerts to a registered number so that the stock position is maintained.

Samba crop comes under false smut attack

Samba raised on about 55,000 hectares in Pudukottai district

Incidence of false smut disease affecting 'samba' crop has been reported from various parts of the district, and farmers have started consulting scientists and agricultural officials for remedial measures.

Samba had been raised on about 55,000 hectares in the district mainly in Tiruvarangulam, Pudukottai, Karambakudi, Annavasal, Tirumayam, Aranthangi, Avudaiyarkovil, and Manamelkudi blocks.

A team of scientists from Krishi Vigyan Kendra who visited the fields say that false smut was predominantly noticed in three blocks: Tiruvarangulam, Karambakudi and Aranthangi.

Coinciding with the flowering season and milk stage of the paddy crop, the fungus grows in the ovary of kernels and transforms them into large and green balls. "The gravity of the problem increases with the change in colour to yellowish green before becoming greenish black," says S.Mathiyazhagan, Assistant Professor of Plant Pathology, Krishi Vigyan Kendra. He said that intermittent rains and humidity cause the disease and favour its spread to the other plants. "Being an air-borne disease, the entire field was prone to be disease attack," he said.

Attack coincides with milk stage of the crop

Straw, stubble of infected plants should destroyed

Cultivation of horticulture crops picking up

Cultivation of horticulture crops is picking up in the district.

Fruits, vegetables and flower saplings have been planted on 330 hectares at a total cost of Rs. 54.646 lakh under National Horticulture Mission.

Gunasekaran of Ponmanapatti in Alathur Union has cultivated pumpkin (Parangi) on 1,000 sq.ft. Shade nets have been put up with 50 per cent subsidy at the rate of Rs. 300 per sq. mt. Chandrasekar of Kannapadi has raised vegetable plants on 2000 sq. mt.

Collector Darez Ahamed, who visited the fields of these two farmers, enquired them about the usefulness of shade nets.

Mr. Chandrasekar showed the vermi compost demonstration, as well as chillies, tomatoes, brinjal, water melon and coriander cultivated in the filed to the Collector. He said he used to sell vegetables in Ariyalur, Kulithalai, Thuraiyur and Perambalur.

Collector appreciated the farmer and asked officials to bring farmers from other parts of the district and show the vegetables cultivated by the farmer to other farmers. Later, he distributed fertiliser and pesticides to farmers.

Ooty getting ready to provide a visual treat

2015 Annual Floral Carnival to feature new varieties

Planting operations for the 2015 summer season and the 119th Annual Floral Carnival (AFC) at the Government Botanical Garden (GBG) were set in motion on Sunday.

With a puja being performed by the workers, The Nilgiris Collector P. Sankar planted a seedling to mark the occasion.

Expressing the confidence that by the middle of April the flowers would start blooming and by early May the entire garden would be a riot of colours, he said that the staggered planting would go on till the first week of February. This year, the garden would be more colourful during the season as many new varieties including akelia, feliz, astilia, erysimum, lobelia and rudbeckia would be introduced. The administration would go all out to make the coming flower show memorable.

The Joint Director of Horticulture, N. Mani, said that long duration crops like salvia, delphinium and penstimon would be planted during the first phase. Seedlings of Ageratum, Aster, Phlox, Zinnia, Candy Tuft, Calendula, Balsam, Calceolaria, Celosia, Cineraria, Coreopsis, and Pansy would be planted next month. During the final phase, Petunia, African marigold, French marigold and Dahlia would be planted.

Stating that it has been planned to plant different varieties of about 185 kinds of annuals and perennials, he said that the total number of plants would be 3.5 lakh. Work on growing flowers in about 15,000 pots for display in the galleries also started on Monday. Pointing out that steps have been taken to prevent scorching of young plants by frost, he said that steps would also be taken to retain the verdancy of the lawns.

Smart way of augmenting income by intercropping

Farmers prefer seasonal fruits, vegetables along with orchard crops

EXPANDING BOUNDARIES:S. Raja Mohamed,Deputy Director of Horticulture, looking at watermelon crop at Pappankulam nearNanguneri in Tirunelveli district.

Some ‘smart farmers’ in the district, who have deviated from usual farming practice, have identified a ‘sweet way’ of augmenting their income by intercropping minor (seasonal) fruits and vegetables along with orchard crops.

Perennial fruit crops like mango and acidlime, having long gestation period, are the biggest hurdle for the poor farmers, who hesitate to take up fruit crop cultivation on a large scale as they cannot reap immediate revenue.

Under the National Horticulture Mission (NHM), to promote the cultivation of mango and acidlime, farmers are given mango grafts, acidlime saplings with a subsidy of Rs 7,650 per hectare for normal planting method, whereas High Density Planting (HDP) method fetches Rs 9,800 per hectare for mango, and for acidlime a subsidy of Rs 12,000 per hectare is given.

During 2014-2015, 50 hectares have been covered by mango under normal planting method, 60 hectares under the HDP method and 100 hectares under acidlime to benefit 242 farmers. Following rains, farmers have planted mango and acidlime plants. The Department of Horticulture was urging the

farmers to cultivate a season-bound intercrop like watermelon in these new orchards to get revenue in about 80 to 90 days during summer.

“The pulp of fully ripe watermelon (Citrullus lanatus), will be juicy and delicious. It is the richest source of iron among all cucurbits. It requires warm weather with low humidity and bright sunshine. During the development of the fruit, a higher temperature will result in more sweetness in the juice. The yield of hybrid variety ranges from 45 to 60 tonnes per hectare,” says S. Raja Mohamed, Deputy Director of Horticulture, Tirunelveli.

Inspecting the field of K. Subramanian of Pappankulam in Nanguneri block, where acidlime has been cultivated on 0.50 hectare, Mr. Mohamed, along with A. Asir Kanagaraj, Assistant Director of Horticulture, Nanguneri, said the plant intercropped with watermelon under drip irrigation system was ideal to get the maximum return from the intercrop.

Water for rabi cultivation released

The water from Bhadra reservoir is being released into the canals from the midnight of January 2 for the rabi season cultivation in the command area and plantation crops.

A decision to this effect was taken at a meeting of Irrigation Consultative Committee of Bhadra Command Area Development Project (CADA) here on Friday. It was decided to release water to the left and right bank canals and Anaveri and Malebennur branch canals from January 2 to May 15. B.N. Phaniraj, Superintending Engineer of Bhadra CADA, has said that the meeting had decided to ensure continuous flow of water in the canals.

At present, the water-level in the reservoir stands at 181 ft. against the maximum level of 186 ft.

Pest attack in cotton crop

Pest and bacterial disease attack has been noticed in parts of cotton crop cultivated in various blocks in the district and the agriculture department has initiated steps for checking the disease.

Altenaria fungal disease has been found in some fields. The disease appeared during rainy season and it vanished after a few days, according to officials.

Chemicals Protigonozole or hexagonozole should be mixed with 200 ml water and sprayed to control the disease. The district administration has been giving an impetus for increasing cotton cultivation through a special scheme of granting Rs.1.25 lakh per hectare. One thousand farmers have registered in this scheme.

The collector saw the cotton cultivation at Kannapadi village in Alathur taluk. He advised surface application of fertilisers mixed with water as a cure for the disease. Before applying fertilisers and pesticides mixed with water, cotton should be removed from the pod, officials said.

Pongal season turns bitter for sugarcane farmers

Mills yet to settle dues running into several crores of rupees, they say

Woman worker in a sugarcane field

This Pongal is a bitter season for sugarcane cultivators in the region with agony piling up not only due to the failure of mills to settle their dues running into several crores of rupees, but also because of the absence of State Administered Price (SAP).

Leave alone fixing SAP, farmers are disappointed with the government over its silence over private mills refusing to pay even last year's recommended price. There is no question of celebrating Pongal as no reprieve is in sight due to bankruptcy, farmers say. Already in severe financial crises, cultivators lament that they would be doomed if there is no course-correction in the Central and State policies. While the Centre could intervene and safeguard sugar industry from collapse by combining an increase in duty on imports with enhancing composition of ethanol in petrol to 25 per cent from existing five per cent, the State must not fail to consult farmers before

arriving at the procurement price on a periodic basis, according to representatives of farmers' associations.

There was no reason for private mills to disregard SAP when cooperative and public sector mills were abiding by the recommendation, Subi Thalapathi, representative of Thadapalli-Arakankottai Ayacut Farmers' Association said. At present, none of the private mills paid the farmers beyond Rs 2,400 per tonne, against the recommended rate of Rs 2,600, he said.

Farmers would be doomed if the Centre continued to control price of sugar without considering ground realities, Mr Thalapathi said. Controlling price of sugar on the premise that it was an essential commodity was flawed since the main consumers were not households, but makers of beverages and confectioners, farmers said. The government had to accept the fact that increasing the price of sugar by a few rupees would not affect consumers, since at the level of households the requirement was only a few kilograms on a monthly basis, he noted.

Auction of turmeric fetches Rs. 1.25 crore

The weekly auction of turmeric fetched a sales turnover to the tune of Rs. 1.25 crore at the Tiruchengode Agricultural Producers Marketing Cooperative Society here on Sunday.

The farmers of both Salem and Namakkal districts had brought the turmeric for the auction.

The 'Virali' manjal fetched a price ranging between Rs. 7,639 and Rs. 10,697 per quintal, while the 'Kizhangu' manjal fetched a price between Rs. 6,438 and Rs. 8,697, 'Panangali' variety between Rs. 9, 99 and Rs. 12,999 per quintal.

Over 2,275 quintal turmeric was auctioned yesterday.

The participating farmers were happy that they got at least Rs. 500 per quintal more than the other markets.

A one-stop store for millets

The Hindu

Farmers exhibiting millets at a biodiversity festival organised in Visakhapatnam on Sunday. - Photo: C.V. Subrahmanyam

An assortment of great millet, finger millet, sorghum, ragi, korra, and a host of other coarse grains are now made available for those who are health conscious in both powder and grain forms.

Bringing them to the local consumers for the first time in the city, the Millet Network of India (MINI) partnered with NGOs — Sabala and Sarada Valley Development Samithi (SVDS) — to launch its outlet at The Indian Women's Association, Dabagardens, on Sunday.

A biodiversity festival was organised by involving 60 farmers from Madugula, Kothavalasa, and Cheedikada mandals, and Anakapalle, among other areas.

To create awareness on millet consumption, farmers took out a procession, carrying placards and banners, playing drums, and dancing to the beats of*Tappeta Gullu*.

After inaugurating the store, District Collector N. Yuvaraj emphasised the need to bring the organic produce under single brand concept.

“To overcome the crisis of promoting multiple brands in retail trading and increase the reach of millets, the produce should be brought under single brand label,” he said.

Mr. Yuvaraj told the farmers that there should be a shift in their thought process to adapt themselves to traditional millet farming rather than switching over to cash crops.

Stressing the need for better understanding of market trends, the Collector promised that he would extend institutional credit support to the farmers.

Assistant general manager of National Bank for Agriculture and Rural Development K.S.S.L.V. Prasad, K. Saraswathi of Sabala, and K. Jogi Naidu of SVDS spoke on the importance of consuming millets that provide innumerable dietary benefits.

Farmers who attended the festival were seen explaining the multiple advantages of consuming healthier food made of coarse grains to the visitors.

The organisers said that the timings for the new shop was yet to be decided.

Subsidy for solar driers

The Agricultural Engineering Department would facilitate the farmers to buy solar-powered driers for processing farm produce with a subsidy component of up to 50 per cent. The subsidy would be to the maximum of Rs. 2 lakh, according to S. Suresh Kumar, District Collector.

The Collector said that these driers would have polycarbonate roofing with two — three exhaust fans. A drier on 400-sq.ft of area could be useful for processing banana, tomato, coconut, turmeric and farm produce with medicinal properties.Interested farmers can contact the department.

Workshop for dairy farmers

: The Kerala Veterinary and Animal Sciences University (KVASU) will organise a two-day workshop for dairy farmers in Malabar region at the University auditorium at Pookode on Monday and Tuesday.

Global initiative

The programme, organised in association with the Malabar Regional Cooperative Milk Producers Union and British Council, is part of the global innovative initiative programmes of the university.

B. Ashok, Vice Chancellor, KVASU, will inaugurate the programme at 9 a.m.on Monday, T.P. Sethumadhavan, Director of Entrepreneurship, KVASU, said in a press release here issued here on Sunday.

Training programme in edible mushroom cultivation

A day-long training programme on ‘edible mushroom cultivation” was organised at Krishi Vigyan Kendra at Vamban near here on Saturday providing an opportunity to farmers to understand the scope and prospects of mushroom cultivation. S.Mathiyazhagan, Assistant Professor of Plant Pathology, explained the importance and medicinal characteristics of mushrooms which are rich in protein, carbohydrate, fibre, vitamins and minerals. Mushrooms have higher protein content than vegetables and fruits.

Explaining the advantages of a mushroom-based diet for diabetics, he said that because of their lower fat and calorie content, mushrooms are suitable for diabetics. There has been a growing demand for mushrooms due to their nutritional and medicinal value. Edible mushroom cultivation, particularly that of oyster and milky mushroom, was highly suitable for the district, he said and appealed to farmers to take up mushroom cultivation. While oyster could be cultivated during winter season, milky mushroom could be cultivated during summer.

Mr.Mathiyazhagan also conducted a demonstration on production of mushroom spawn and clarified farmers’ doubts.

He also explained the post-harvest techniques and value-addition in mushroom by preparing mushroom soup and ‘pakoda’.

A special information unit to clarify farmers’ doubts has been set up at Vamban, he said and appealed to farmers to contact the unit at: 99445-20544.

Agriculture Dept. goes hi-tech

GPS, internet tools used to collect farmers' details

The Agriculture Department here is on the verge of completing the process of bringing farmers under the Farm Crop Management System (FCMS), a computerised database where it has all details at the click of a mouse.

According to sources, the Department collects farmers' personal details like education qualification, community, Aadhar number, etc. It then collects land details like the extent of land holding, survey number, the type of irrigation and its source. It uses lat-long coordinates to identify the land and also lift soil samples. And, the Department also collects bank details, crop plan, the village cropping pattern, etc. The sources say that the data thus collected will be used to create a farmer-wise database, which the Department uses for providing various services that include recommending the right fertiliser at the right combination based on the results of the soil sample and crop details.

The sources said that the Department had collected 1,15,000 or 80 per cent farmers' details by sending its field officers in all the 12 panchayat unions in the district. They used a mobile computing app developed for the purpose.

Based on the details collected, the Department sends periodical updates to farmers as text and also voice messages. It also alerted farmers if there were pest attack and recommended them the right pesticide.

In the process, the Department gave each farmer a unique FCMS identity number, which they could use at agriculture extension centres to avail of various benefits. For the staff, it helped in serving more farmers as the manual process of bill generation got eliminated.

At the authorised fertiliser outlets too, the farmers could use the FCMS identity. And, shopkeepers were asked to register the identity so that the Department officers could verify the authenticity of the bill generated.

The sources said that the next stage would be linking the farmers' identity with bank accounts so that there could be direct transfer of subsidy. At present the Department was putting in place the system to transfer the subsidy. It could be through in the next few months, they added.

Agri varsity offers online courses

The Centre for e-Learning (CeL) of the Kerala Agricultural University (KAU) invites applications for three online courses under its programme, e-Krishi Patashala.

Courses are being offered in Organic Agricultural Management, Plant Propagation and Nursery Management and Post-Harvest Management and Marketing of Fruits and Vegetables. An applicant may apply for only one of the courses, the duration of each of which is six months.

Applicants should have a valid e-mail id. The medium of instruction is English. Farmers, employees, students and home-makers, including foreign nationals, of any age may apply.

Those interested may remit an application fee of Rs.200 through online banking/NEFT to Saving Bank Account Number 67139678277, of State Bank of Travancore, KAU Branch, Vellanikkara (IFSC Code: SBTR0000670; Branch Code: 000670), favouring Professor and PI. Thereafter, the application form, downloaded from the Online Course link in www.celkau.in website, shall be filled and sent along with attested copies of relevant certificates proving educational qualifications to The Director, Centre for e-Learning, IT-BT Complex, KAU (P.O.), Vellanikkara, Thrissur-680656, Kerala, India.

Shivamogga UAHS to observe 2015 as year of agriculture mechanisation

University will conduct field demonstrations in villages: Vice-Chancellor

The University of Agriculture and Horticultural Sciences (UAHS), Shivamogga, will observe 2015 as the year of agriculture mechanisation, said its Vice-Chancellor C. Vasudevappa.

The UAHS, Shivamogga, would conduct demonstrations in the fields of farmers in its jurisdiction on the usage of agriculture implements.

Farm implements

A bank of agricultural implements would be opened at the Zonal Agricultural and Horticultural Research Station (ZAHRS) of the university at Hiriyur, Shivamogga, Mudigere and Brahmavar.

The agricultural implements would be rented out for farmers, he told presspersons here, recently.

The UAHS has purchased automatic seed and fertiliser driller, tractor-operated post hole digger, paddy harvester, paddy transplanter and arecanut climbing device. In the first phase, the entire farming operations in the demonstration plots at the campus of UAHS, Shivamogga, in Navile locality, near here, would be mechanised, he said.

Experts from the university would create awareness among farmers on the importance of mechanisation of agricultural operations through on-field demonstrations and by delivering lectures in villages. The farmers would be trained in the operation of agricultural implements.

The local gram panchayat would be roped in for the activities, he said.

Survey conducted

The university had conducted a survey on the cropping pattern in all the seven districts coming under its jurisdiction, comprising Shivamogga, Chikkamagaluru, Chitradurga, Kodagu, Dakshina Kannada, Udupi and Davangere. Aricultura; implements worth Rs. 25 lakh would be provided for all the ZAHRS of the university after assessing the local needs, he said.

The UAHS, Shivamogga, would publish a monthly magazine titled ‘Negila Midita’ containing articles related to scientific methods of tilling, sowing, pest management, weed control and harvesting. Experts would be contributing articles on the usage of information technology and re

mote-sensing in agriculture. In addition, an interview with a progressive farmer would be published in each edition, he said.

The Organic Farming Research Centre of UAHS, Shivamogga, had undertaken cultivation of fruits and vegetables in poly-houses in organic method. An outlet to sell these fruits and vegetables would soon be opened on the university campus, he said.

Mr. Vasudevappa launched the activities related to farm mechanisation and released the magazine on the occasion.

A.S. Kumaraswamy, Academic Director; T.H. Gowda, Extension Director; and P. Narayanaswamy, Research Director, were present.

'Agricultural implements will be provided to farmers for rent through zonal centres'

University to publish a magazine 'Negila Midita' focussing on scientific cultivation

Technology comes to farmers' aid

Wireless networks being used to enhance yields through precision agriculture

Precision agriculture studies type of crops, critical factors for growth and market needs for the benefit of farmers.— File Photo: M.A. Sriram

An engineering college near Mysuru is helping farmers choose crops which are best suited for their land after studying soil conditions, weather and other factors critical for a good harvest.

The college has been supporting its advice with inputs on market trends to ensure that farmers get the best returns for their produce.

Perspective agriculture

Describing the concept as 'Perspective agriculture', the faculty at the Maharaja Institute of Technology through Maharaja Research Foundation

has started to use wireless sensor networks to recommend the type of crops after studying critical factors and market needs.

Wireless networks have been utilised for enhancing crop yields through precision agriculture in countries such as the United States.

The primary aim of the joint initiative of the college, the College of Horticulture, Mysuru, and the Sri Kshetra Dharmasthala Rural Development Program (SKDRDP) is to improve farm productivity and profits to farmers with the help of using technology.

A group of farmers from Palahalli and Meghalapura near Mysuru, and Bellale near Pandavapura, were identified for the initiative and each one of them has received wireless sensor network devices to access information.

Dr. Mahesh Rao from the Department of Electronics and Communication, Maharaja Institute of Technology, told *The Hindu* that about 50 farmers from the two villages had joined the initiative and will be trained in handling the devices at a workshop to be held at Gopalaswamy Institute in Mysuru on Monday.

"We provide the technology while the College of Horticulture gives the data on soil and crops, and the SKDRDP identifies farmers. The idea is to make agriculture sustainable by collecting data, forming a model using simulation software and predicting the best suited crop after analysing the soil and market conditions," he explained. He said the initiative was launched six months ago. The villages and farmers had been identified, and the team was gearing up for the next cropping season to implement the idea.

"We need to train the farmers on handling the devices which will be given to them free, for accessing data sourced from our network," he added. Citing an example, Dr. Rao said the cost of tomato per quintal in August last year was around Rs. 650 in Mysuru while the price was Rs. 450 per quintal in Mandya and Rs. 1,900 per quintal in Uttara Kannada.

"We will provide market trends to farmers so that they can get higher returns."

Farmers in three villages near Mysuru to adopt wireless technology to improve crop yield

No road connectivity in Arunachal spice village

: Sissen village in East Siang district of Arunachal Pradesh has enough spices to ensure a better living for the locals, but lacks in road connectivity.

The tiny village, perched atop a hillock on the banks of Siang river, has earned laurels for record production of organic spices, but till today lacks a motorable road connecting it with the rest of the world.

The only means of communication for the few hundred villagers is a bamboo hanging bridge over the river. Adults as well as children cross the river risking their lives everyday.

The village, under the administrative control of Kebang circle, has only 21 households and 140 voters (as per 2011 Census).

The residents had boycotted the Assembly and Lok Sabha elections to draw the attention of politicians to their plight. But nothing has been done to reduce their problems so far.

The village has farming enthusiasts from each household growing spices such as cardamom, ginger, red chilli, turmeric, medicinal and aromatic plants, and many other agriculture and horticulture products.

Everyone in the village has become an organic spices grower to sustain his livelihood without depending on contract works or government jobs.

Reaping a bounty through organic farming

Chembalam Ravi and his family at their farm in Ayyappancoil village in Idukki district.

Most farmers are not aware of the ill-effects of pesticides on plants. It can hinder its growth and flowering, says Chembalam Ravi, a traditional farmer of Urali tribe.

In his three-acre land, he along with his wife, cultivates almost all the vegetables in addition to the cash crops like pepper, rubber and cardamom.

What makes his farming different is that he does not put much stress on the soil. For weed control, he adopts the grass-cutting method and applies the bio manure not for a particular plant but for the entire soil. “It makes the soil rich and one need not apply any fertilizer prior to the planting. The weeds decay there and gives additional fertility to the soil,” he says.

His ‘malimulaku’ (yellow lantern chilly) farm, is nearing harvest. Ravi says that he has collected even nine kg of chilly from a single plant and they have more lifespan than those in the nearby farms. The chilly is an inter-crop and is sold to the local agencies for export to the Maldives.

Best farmer

At his farm in Ayyappancoil village, Ravi cultivates all the vegetables and tubers. Agriculture Technology Management Agency (ATMA) had selected him as one of the best farmers in the district in 2014 and he won the best prize for the vegetable farm at the block level.

“When there is a pest attack, I approach the Krishi bhavan for expert opinion,” he says adding that bio pesticides are used on the basis of their recommendations. “However, I apply it diluting it to a very thin solution in the water. The duration period is also reduced,” he says.

According to him, pest attack is minimum when the vegetable plants simultaneously grow along with other plants and weeds. He shows a separated ‘malimulaku’ plant with curled leaves. According to him, it was because of the effect of a pesticide application.

“I applied it only to learn how pesticide could negatively affect the growth of the leaves which makes an impact on the yield of a plant,” he says.

Ravi says plants need natural fertilizer from the soil. “Plants like any living organism do not require more than what is needed for growth. Farmers

unaware of it apply more fertilizers and pesticides on the plants that makes a negative impact on them," he says.

Ravi has cultivated carrot, beetroot, potato, strawberry, cabbage and all vegetables grown in the Vattavada and Kanthallur region. As for carrot and potato he received a better average yield per plant than those grown in other areas of the region, he says.

Punjab

Inspite of facing erratic rainfall last year, Punjab was able to see a record production of wheat and paddy crop in the state. State Agriculture Minister Tota Singh said that Punjab produced 176.20 lakh tonnes of wheat in the 2013-14 rabi crop season. This was the second highest record yield in the state till now.

A call to save Karachi's mangroves

High timePollution, illegal logging and changes caused due to the irrigation system have eaten up the mangroves with only 1,30,000 hectares of the 6,00,000 remaining now. Biologists say there is still hope.Photos: AFP

Thick mangroves have long protected Karachi, southern Pakistan's sprawling metropolis, from battering by the Arabian Sea.

But pollution, badly managed irrigation and years of illegal logging have left this natural barrier in a precarious state.

Experts fear that loss of the natural barrier formed by the mangroves could put the city of nearly 20 million people at greater risk from violent storms and even tsunamis.

Close to Karachi, the mighty Indus river ends its long journey from the Himalayas in the sea.

The river delta is home to the mangrove, a delicate ecosystem that thrives in the mingled salt and fresh water.

Fisherman Talib Kacchi, 50, recalled taking shelter from storms in the mangroves as a young man.

“When there were storms, we would have tied as many as four boats together with the mangroves, and then we would sit, gossip and sing songs,” he said.

But the mangrove is a shadow of its former self — from 6,00,000 hectares in the early 20th century now barely 1,30,000 hectares remain, according to marine biologist Mohammad Moazzam Khan.

The rest has fallen victim to illegal loggers, pollution from nearby industry and changes to the river flow caused by irrigation upstream on the agricultural plains of Sindh and Punjab provinces.

Early warning

The fishermen, who make a livelihood from the fish and shellfish that shelter in the mangroves, have warned about their decline for years.

But a short boat ride from Karachi's Ibrahim Haidri fish harbour finds plenty of locals cutting the mangrove and carrying it away.

Some use foliage as fodder for cattle while others scrape a living by selling branches for fuel.

Cutting the mangroves is illegal but the maximum punishment for cutting them is a 36,000 rupee fine, doubled for habitual offenders. In any case, prosecutions are extremely rare.

Karachi is Pakistan's biggest city and economic and industrial heart. The rapid growth of factories has contributed to pollution in the Indus delta.

Near a power plant to the east of the city, the mangroves are dry and withered, robbing fish of their spawning grounds and angering Kamal Shah of the Pakistan Fisherfolk Forum.

“I really cannot understand why you would attack the mangrove. It's stupid. It's like emptying your neighbour's stomach to fill your own,” Shah said.

As well as dissipating the energy of tropical storms when they hit the coast, the mangrove also provides a line of defence in case of tsunamis.

The Arabian and Eurasian tectonic plates meet at the Makran Trench, off the coast, and the boundary has the potential to create major earthquakes.

An undersea quake in 1945 generated a tsunami that hit Karachi, killing 4,000 people, and a recent UN simulation suggested the city could be wiped out if a big tremor hit again.

“It is a very important ecosystem... it is the first line of defence against cyclones, strong surges, tsunami and other natural calamities,” said marine biologist Khan, who works for the WWF wildlife NGO.

But there is some hope. A drive to replant the mangroves in recent years has seen them slowly regain some of the losses.

“It (plantation) is going very well. There are very few areas in the world where the mangroves cover is increasing and Pakistan is one of them,” Khan said.AFP

When there were storms, we would have tied as many as four boats together with the mangroves, and then we would sit, gossip and sing songs

Steps to tackle rodent menace

New designs for TNCSC godowns

Rodent menace has been a major problem at godowns causing severe damage to the produce stocked at warehouses and godowns.

The Tamil Nadu Civil Supplies Corporation (TNCSC) has been adopting a special technique to tackle the menace while constructing the godowns. The old godowns had designs with a fleet of steps leading to shutters. These steps provided an easy access to rats to get into the godowns.

“The new designs do not have steps at all; instead, we use a small wooden ladder for officials and workers to enter the platform in front of the godown,” says G. Chitrarasu, Senior Regional Manager, Tamil Nadu Civil Supplies Corporation, Tiruchi, while explaining the advantages of the new design adopted at the new godown constructed at Advathur near Tiruchi on Saturday. The godown was constructed at an estimate of Rs. 3.03 crore under the Rural Infrastructure Development Fund of the National Bank for Agriculture and Rural Development. “In fact, we have been demolishing steps at old godowns so that rats do not have access to godowns,” he said. Further, a rat-guard has been constructed all around godowns to prevent entry of rats.

Focus on entrepreneurship in animal-based agriculture

`Kerala Veterinary and Animal Sciences University has established a separate directorate to promote start-ups by students, reports E.M. MANOJ.

Kerala Veterinary and Animal Sciences University (KVASU) at Pookode, Wayanad, is implementing a comprehensive entrepreneurship development

programme in animal-based agriculture and has established the Directorate of Entrepreneurship to strengthen activities on this front.

Entrepreneurship development, extension, knowledge dissemination, distance learning, and awareness programmes are among the focus areas of the directorate.

The academic council meeting of the KVASU held on December 20 gave the green signal for the initiatives.

Farmer centric

The university had contributed substantially to animal-based agriculture with special focus on farmer entrepreneurship for food security. Farmers, being the primary producers, were key to driving local economic growth, sustainable agri-food systems, and food security, said B. Ashok, Vice Chancellor (VC) of the university.

Promoting the entrepreneurial initiatives of students to create opportunities for multi-stakeholder action would contribute to availability of qualitatively good food and nutrition and improve market efficiency with sustainable food chains, said the VC.

With the Government of India giving more thrust on food security and food safety issues, entrepreneurship and innovation management in agriculture and food sectors are emerging as some of the specialisation areas in entrepreneurship.

Major objectives of the KVASU's student entrepreneurship project are — to establish student entrepreneurship projects in the areas of technology, diagnostics, delivery models related to animal agriculture, and livestock development sector, and to start technology incubation centres, focussing on and capable of handling animal-product and process innovations. Moreover, it envisages developing appropriate business models in livestock-product marketing and licensing.

"Start-up village in livestock production is a new concept in the State. In order to popularise this model a pilot project will be established," said Dr. Ashok.

This needed further validation and market feasibility studies. Start-up village in livestock production in the areas of dairying, egg and broiler production, with marketing network, would help meet the increasing demand of animal protein in the State, he added.

Branding

Major deliverables would be to help establish a start-up village in livestock production and help develop sustainable development models and identify the market potential of livestock products as separate brands, T.P. Sethumadhavan, Director of Entrepreneurship, KVASU, said.

Innovation in the areas of diagnostics, new product development, and delivery models for providing services with the use of Information and Communication Technology would be other focus areas, Dr. Sethumadhavan said.

Taking a cue from the global trend in student entrepreneurship, the State government has announced the Student Entrepreneurship Scheme to encourage entrepreneurship among students in the State.

The government has issued guidelines for granting grace marks and attendance to students during the ideation stage, teaming and company formation, technology formation and development of business models. It also suggests establishment of Technology Business Incubators (TBI) on campuses to help student entrepreneurs.

Cusat's budding entrepreneurs to get incubation facility soon

Varsity drafting Rs.1-crore proposal to build infrastructure

Soon, the Cochin University of Science and Technology (Cusat) will offer young entrepreneurs in its recognised colleges an incubation facility on the lines of the Startup Village to pursue their dreams.

As a first step towards setting up the incubator, the varsity is midway through drafting a Rs.1-crore proposal aimed at building infrastructure on its main campus in Thrikkakara. Young talents could utilise the facility to carry out their venture.

Senior officials close to the development told *The Hindu* that the proposal would be placed before the Union and State governments for assistance. The

aim was to make the facility a vibrant space, where youngsters could come, share and implement their innovative business ideas, they said.

Cusat has sought the expertise of Sijo Kuruvila, former Chief Executive Officer of Startup Village, to chalk out a detailed action plan towards implementing the incubation facility.

Those associated with the project also confirmed that veteran IT experts would support the innovative venture.

A decision by the Centre to aggressively promote entrepreneurship and start-up ventures has also come as a ray of hope for Cusat. The varsity is hopeful of securing funds to set up state-of-the-art infrastructure for the incubation facility.

Some of the proposed facilities include furnished office space with air-conditioning, furniture, continuous power supply, networking, discussion and conference rooms. A ready-to-use plug and play infrastructure providing a lower operational cost has been envisaged in the first phase of the initiative.

Cusat has also decided not to limit the start-up ventures to IT alone but also to encourage youngsters to spread out to other potential areas such as biotechnology, agriculture, food processing and other non-IT fields. A mentoring project is also on the anvil, where chief executive officers will be invited to interact with the young entrepreneurs. The varsity will also help in attracting angel investors to support the campus start-ups.

‘Bhuchetana’ can improve farm productivity in India: William Dar

Dr. William D. Dar, Director General, International Crops Research Institute for Semi-Arid Tropics (ICRISAT), has relinquished his post and will be going back to his country, the Philippines, where he worked as a Minister and advisor before taking up the position at ICRISAT. He has completed one and half decades at ICRISAT as Director General and was instrumental in increasing funding from US $ 21 million to US $ 85 million by 2014.

He spoke to **R. AVADHANI** . Here are some excerpts from the interview:

What are your suggestions for improving farm productivity in India?

We have submitted some proposals to Union Minister of Agriculture U. Ananta Kumar and Fertilizer Minister Radha Mohan Singh. They have wholeheartedly welcomed our proposals. 'Bhuchetana' will be the basis for unlocking the potential of farmlands in a scientific manner.

There are about 12 to 14 lakh hectares of rice-fallow lands in the Indo-Gangetic plains.

Farmers cultivate only rice or wheat. This land can be cultivated with legumes like sweet sorghum, peanut, chickpea, pigeon pea and groundnut on a war footing. New varieties can give an additional yield between 30 and 35 per cent. India can stop importing five million tonnes of pulses and can meet its requirements for pulses. This can propel a protein revolution in India.

What are the proposals?

The proposals include 'Bhuchetana' (Soil health mapping), using information and communication technology for 'Green Phablet' farming, using hybrid pigeon pea which increases yield by 30 to 50 per cent, promotion of sorghum and millets and establishment of a plant genome centre.

India has about 6,0,000,000 germplasms, the third largest in the world which can be tapped by using genomics sequencing tools to develop drought-resistant and pest-resistant varieties. It will be helpful to offer food security.

What are your plans for the Philippines?

I am returning to my country as a private citizen. I have registered with an organisation, Mother Earth Movement (Inang Lapu in Filipino), which will have four pillars – inclusive agriculture, science-based agriculture, resilient agriculture and market-oriented agriculture, which will lead to robust agriculture. This can be spread to Asian countries if successful.

Are you planning one more book in addition to *Greening the Gray* ?

I am planning one more book, *Hunger Free World,* along with Arun K. Tiwari, co-author of *Greening the Gray* .

The Indian EXPRESS
JOURNALISM OF COURAGE

Pesticide on your plate

The JNU study tested in particular a category of toxic pesticides known as organochlorine pesticides and found them in excess. (Source: Express photo By Oinam Anand)

Vegetables are the noble folk of food world, loved equally by doctors and grandmothers. Vegetarians live off them and meat-eaters are told to live off them. But in Delhi, under every crunchy leaf of radish or the shiny brinjal hide dangerous amounts of pesticides that can slowly kill, shows a new study by JNU.

Pritha Chatterjee and Aniruddha Ghosal report how growers, consumers and the authorities may not even be aware of the scale of these toxins threatening people with coughs to cancer

When you eat your leafy greens and those elegant bhindis, you are doing yourself and the earth a world of good. Universally accepted as repositories of vitamins and minerals crucial to keeping good health, vegetables also help us do our bit for the environment and turn us into animal rights champions by default.

But Delhi could be committing serious offence to its long-term health by biting into that innocent-looking gobhi. A recent study by JNU's School of Environmental Sciences is the latest among many to establish there is contamination from pesticides in vegetables grown and consumed in Delhi-NCR.

The JNU study tested in particular a category of toxic pesticides known as organochlorine pesticides (OCPs) over a year in winter and summer in seven agricultural areas in Delhi-NCR. Most vegetables exceeded limits set by different international regulatory agencies — meaning your vegetables are in fact a daily health hazard.

OCPs are included under a group of toxic compounds called persistent organic pollutants (POPs), which cause cancer and other health risks, including symptoms like vomiting and dizziness, according to many studies. The United Nations Environment Programme, through the Stockholm convention on POPs, listed 12 organochlorine pesticides as POPs. All of these were tested in the latest JNU study and found to exist beyond maximum residual levels in Delhi's vegetables. The study was published in the international journal Environmental Science Pollution Research late last year.

As the authors point out in the study, since many of these vegetables are consumed raw or without much processing, the health risks can be compounded. "Regular consumption of these vegetables even with modest contamination can cause health problems in the long run," the report says.

"Though we are continuing to do many projects on different categories of pesticides, this is the first ongoing study on OCPs because they are a particularly toxic category with 12 of 20 named by the UN as POPs," Dr P S Khillare, professor and corresponding author of the study, said. He added that OCPs are also "very persistent in nature" because they are retained in the atmosphere, soil, water and in the vegetables for very long periods. Studies have also established that dietary consumption accounts for over 90 per cent OCP intake in humans, compared to respiratory or skin-based entry from atmosphere.

The authors conducted gas chromatography tests — a test used to separate and analyse compounds — to measure presence and levels of residues of 20 different banned OCP compounds on vegetable samples taken directly from fields in cultivated areas in Delhi-NCR. Six vegetables — radish, radish leaf, cauliflower, brinjal, okra and smooth gourd, all belonging to different vegetable categories such as root, leafy and fruit type — have been studied by JNU scientists. Sapna Chourasiya, research scholar from JNU school of environmental sciences who is working on OCPs for her doctoral thesis, says tests found most of the OCPs were found to exceed national and international limits.

The levels of pesticides in agricultural produce considered safe for consumption are defined as maximum residue limits (MRLs). In the study, the authors compared the levels of pesticides with MRLs set by the European Commission (EC), WHO and Prevention of Food Adulteration Act of India. "Comparison of our results with MRL values established by various agencies clearly indicates that OCP levels were above the established guideline value. It could be done to continued application of OCPs in vegetables to eradicate pest infestation," the authors have said. To measure health risks, the daily intake and non-cancer and cancer risks were individually calculated for every OCP.

A compound known as aldrin was found to contribute to maximum non-cancer risks for both adults and children. The cancer risk attributed to OCP exposure in particular is considerable, with 12 OCPs identified as B2 class carcinogen, known as probable human carcinogens by the WHO. The study found a high lifetime cancer risk in children and adults, which authors said was "serious concern for Delhi population". These risks, authors have said, should be taken into account for "future food safety legislation", and farmers should again be educated. The researchers say direct spray or atmospheric deposition has been found to be the most common pathway of contamination of vegetables. The concentration of pesticides were found to be higher in winters than in summers.

"Vegetables grown in winter in lower temperatures have lower photodegradation of pesticides and the soil surface retention is high. In summers, thermal degradation is faster," Dr Khillare explained. Researchers say there is an "urgent need" to prevent further release of these compounds, and bring in "stricter regulatory legislation". Researchers said more government action is needed on the ground. "The ban on toxic agricultural products, in particular, OCPs seems to be only on paper even though the pesticide management act from 1968 was modified in 2008.

Environmental and health safety is directly linked to poverty and the government needs to act on the root cause. If people are poor they will continue to buy these products, and we continue to be the world's fourth highest producer of toxic compounds in pesticides," Khillare said. 'Can pesticides harm more than the poisonous Yamuna water?' Parvat Kumar of Kailash Nagar village near Shahdara grows cauliflowers, brinjals, peas and melons on a patch of land along the Yamuna for a living. Like Kumar, most farmers in Delhi grow crops on farmlands dotting both sides of the Yamuna. But the father of two does not know that a team from the School of Environmental Sciences at Jawaharlal Nehru University (JNU) recently carried out a study close to his fields in northeast Delhi's Yamuna Pushta

area. The study found toxic pesticides known as organochlorine pesticides in vegetables in excess of those prescribed by international bodies. “How can vegetables make you sick? We wash them before they are sold,” Rupesh, another farmer, said. Kumar says he keeps a steady stock of pesticides to ensure a good harvest.

“Once crops are infested with pests, it is hard to retrieve them,” he said. Most vegetables cultivated in Delhi end up in its kitchens. On Saturday morning, Kumar came to the Ghazipur sabzi mandi, making his weekly trip there to sell his vegetables. From the mandi, Kumar says part of his produce goes to retail shops in Northeast and Central Delhi.

A huge part of it finds its way to shops in Noida and Ghaziabad. He is careful to leave enough for his wife Asha, who squats along the ITO and Nizamuddin bridges selling vegetables, particularly in winter. On other days, Asha travels to Mayur Vihar, setting up her baskets “on the footpath opposite the Metro line”. “Rates at wholesale markets are fixed. So if we sell it on our own, the profit is more,” Kumar, whose children are aged nine and 12, said.

Kumar and other farmers like him, working in fields along the Yamuna, have not heard of guidelines on use or disposal of pesticides, let alone bans on certain kinds of pesticides. “Most of my cultivable land has already been taken away by the government and our jhuggis razed. I have to ensure that the land I am left with produces enough to sustain my family. If I do not use pesticides, how can I sustain cultivation?” he says. Kumar buys the cheapest pesticides in the market.

He does not know what they are made of and only identifies them by the colour of the packets. Farmers say “conditions” in Delhi force them to use more insecticides and pesticides. “All the construction and habitation, and the pollution have rendered the area uncultivable. We have to stretch resources and fight against all odds for a good harvest every season,” Kumar said.

A year after the Delhi government constituted the first body to check for pesticide residue in fruits and vegetables, Kumar says no government official has visited his field to take samples. “Will they close our fields if they find medicines in the vegetables?” he asks. Southwest of the river, at Madanpur Khadar village near Okhla, it’s the same story.

Asked about what pesticides they use, Vijay Singh, a farmer and vegetable seller, points at the river. “It’s the government that has rendered this river poisonous. That’s the water that comes in our taps and we use on our crops. How can anything be more poisonous than that water,” he said. “Earlier, there was a lot more land and a lot more area for farming.

But this is not the case anymore. Most of Madanpur Khadar is now an unauthorised colony for those who live here. Generations before us farmed here, growing vegetables along the river. It was enough for them, to eat and also earn profits. The river fed them, but now the river is so polluted that we have to do all we can to make our crops grow," Raghubeer Singh Bhiduri, a villager, said. Bhiduri says like most farmers in Delhi, he grows different crops depending on the season — melons, gourds, okra, cauliflower and spinach. "Most of our produce are sold at the Okhla sabzi mandi. Sometimes, we give it to people who in turn sell it in nearby localities such as Kalkaji, CR Park, Alaknanda, Govindpuri and Greater Kailash," he said. One lab to test over 100 toxins For years, 42-year-old farmer Lokesh Singh has grown vegetables like gourds, potatoes and cauliflowers in his fields along the Yamuna riverbed in Shahdara.

He has heard of the harmful effects of pesticides but says seasonal pest infestations leave him no choice. "I contact my dealers and they recommend a medicine for the crops. Who knows what is in the medicine? Should I worry about the crop or side-effects?" he asked, stocking a pile of cauliflowers, leftovers from his morning sale at the Ghazipur wholesale mandi, to be sold on the ITO bridge. Delhi has just one government laboratory for testing pesticide residues.

With a capacity of 100 samples per month, it is capable of testing for only 28 pesticides. A six-member health ministry committee, constituted on the directions of the Delhi High Court, submitted a report in May 2013 to frame a policy for monitoring of pesticide residues in fruit and vegetables. The report said the capital's only pesticide testing lab was "meagre for the state in view of the quantum of fruits and vegetables".

The same report identified 205 selling points for pesticides in Delhi, including 10 under the department of agriculture, eight under cooperatives and 187 private traders. The committee recommended establishment of three to five government labs near Delhi's nine wholesale vegetable markets, and testing more samples in private labs.

The findings of the committee also recommended random checks, raising frequency of tests, starting smaller labs in the vicinity of mandis so that testing can be immediate, testing of seasonal and non-seasonal fruits and vegetables at least on a quarterly basis, among others. But nearly two years after the report, little progress has been made.

In March 2013, the Delhi High Court directed the Delhi government to institute a committee to monitor pesticides and in April, the Delhi government formed the Pesticide Residue Management Cell (PRMC) under the control of the Food Commissioner, but maintained that only 28 types of

pesticides could be tested in government labs. The cell held its first meeting only on May 2 and since then, officials said, little work has been done. "We are framing guidelines for better regulation and including the private sector in the testing process. We will also be preparing a publicity campaign around subzi mandis and retail vegetable markets in the city to educate farmers and vegetable dealers," a senior official from the department of environment told Newsline. So how do banned pesticides continue to be available to farmers? The May 2013 health ministry report stated that the "building up of pesticide residues above MRLs (maximum residue limits) should not normally arise.

But findings by several research workers/institutions belie this position, indicating there is something wrong somewhere". Indiscriminate use, non-observance of prescribed waiting periods, use of mis-branded or spurious pesticides, continued use of restricted or banned pesticides and wrong disposal practices were identified as some possible reasons for contamination. Sapna Chourasiya, research scholar from the JNU School of Environmental Sciences, explained that a survey of pesticides and fertilisers in shops in the areas from which vegetable samples were collected for the recent study showed that none of the specific banned pesticides were being sold.

"We, however, found several pesticide mixtures in powder form where the components were not identified in the packets. These are marketed as one-size-fits-all mixtures which will work on different categories of vegetables. When we tested them and identified separate compounds, the banned pesticides were identified," Chourasia said. A senior official of the state environment department said the problem that the continued use of banned pesticides represented is only the tip.

"Increasingly we find that pesticides that are banned or restricted in most countries in the world end up in India. With increasing competition for larger produce amongst farmers, it's not surprising that they turn to a readily available alternative, which might be slightly expensive, but is guaranteed to ensure increase produce.

The need of the hour is for the government to look for greener alternatives. But the government is stuck in a pro-pesticide bias and is not looking at the long-term health impact of such practices," the official said.

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weather

INDIAN CITIES | INTERNATIONAL CITIES

Chennai

Chennai - INDIA

Today's Weather

Monday, Jan 5

Partly Cloudy

Max 29° | Min 24°

Rain: 0
Humidity: 66
Wind: normal

Sunrise: 06:32
Sunset: 05:55
Barometer: 1013

Tomorrow's Forecast

Tuesday, Jan 6

Partly Cloudy

Max 29° | Min 24°

Extended Forecast for a week

Wednesday **Jan 7**	Thursday **Jan 8**	Friday **Jan 9**	Saturday **Jan 10**	Sunday **Jan 11**
30° | 24° Partly Cloudy	30° | 23° Partly Cloudy	30° | 23° Partly Cloudy	29° | 22° Partly Cloudy	27° | 20° Partly Cloudy

THE TIMES OF INDIA

The ultimate guide to oats

Having a multifaceted health aura around it, oats is a top ranker in the list of superfoods. Thissuperfood is always the preferred cereal grain for preventive treatment in the case of cardiovascular diseases, diabetes, cancer, blood pressure and even bowel function.

Oats contain a specific type of soluble fibre called beta-glucans, which is known to lower cholesterol. This soluble fibre breaks down, as it passes through the digestive tract, forming a gel that traps substances related to cholesterol, causing a reduction in its absorption from the bloodstream. The bad cholesterol (LDL) is trapped without lowering the good cholesterol (HDL). Apart from its selective lipid-binding role, oats also are one of the best sources of tocotrienols. These are antioxidants which combine with tocopherols to form vitamin E, which in turn helps lower serum cholesterol build up.

Today, the market has a variety of this wonder cereal available in many different forms. Here are the different varieties of oats and their nutritional benefits:

Whole grain oats

Also known as oat groats (minimally-processed oats, high in nutrition), these are whole oat kernels with the inedible hull removed. They have a chewier texture and are best eaten hot, as breakfast porridge. They take the longest time to cook - approximately an hour on the flame!

Steel-cut oats

Also called Irish oats, they are whole oat groats which have been chopped into small pieces with metal blades. This increases their surface area to absorb water. Thus, they cook faster - approximately 20 minutes on the stovetop.

Scottish oats

More popularly known as oatmeal, these oats are stone-ground into irregular broken bits - a method that originated in Scotland centuries ago. These have

a creamier texture than steel-cut oats and take about 10 minutes to cook on high flame.

Rolled oats

In this, the oat groats are steamed to soften them and then rolled into flakes. This process stabilises their healthy oils and extends their shelf life without significantly affecting their nutritional profile. They take approximately 10 minutes to cook on the stovetop.

Quick oats and instant oats

These oats go through the same process of steaming and rolling as rolled oats but for a longer time, so they are partially cooked. They are rolled thinner and are thus creamier and less chewy in texture. Since they are already broken down finely, they don't keep you feeling full like steel-cut or rolled oats. They can be prepared by simply adding hot water and letting them stand for a few minutes. Since they are already pre-cooked, they just need to be rehydrated and are ready to eat. When you buy these plain and unsweetened, their health benefits are similar to rolled oats.

Oat bran

This is the outer layer of the oat groats that is ground into a coarse meal and is high in soluble fibre. It contains almost all the fibre in an oat kernel. It is technically not a whole grain since it is ground only from the bran layer. However, it has health benefits of a whole grain.It can be cooked into a hot, creamy cereal in two minutes on the stovetop or added to other cereals, yogurts and smoothies to increase daily fibre intake.

Point to remember

The nutritional profile of different oats is essentially the same whether it is left whole, cut, rolled or ground.

RECIPE IDEAS

OATS PONGAL

Ingredients: Rolled oats or instant oats: 1 cup, Yellow moong dal: ½ cup cooked soft, Spinach (finely chopped) : 1 cup, Ginger (grated) : 1 tsp, Green chillies (slit): 2, Salt to taste For tempering: Cumin seeds: ½ tsp, Black peppercorn (lightly crushed): 8, Asafoetida: 14 tsp, Curry leaves: 6, Ghee: 2 tsp

Method: Heat the ghee, add all the ingredients used for tempering and then the ginger and green chillies. Add spinach and saute for 2-3 minutes. Pour the water, bring to a boil, and then add salt and oats. Reduce the flame, cook for 4-8 minutes, depending on the oats. Add cooked dal and cook for another 2-3 minutes. Serve hot.

BIRCHER MUESLI

Ingredients: Rolled oats: 25 gm, Dried apricots (or any other dry fruit) : 1 tbsp, Almonds, walnuts or hazelnuts (roughly chopped): 6, Apple juice: 6 tbsp, Green apple (coarsely grated): 1, Milk: ½ cup, Spoonful of yogurt to top, Honey for garnish

Method: Soak the oats and dried apricots in the apple juice overnight (that's the key step). Put the apple in a bowl along with a pinch of salt. Add the soaked oats and then pour in the milk, to make its consistency like a porridge. Add the nuts and a dollop of yogurt. Drizzle the honey on it. Serve chilled.

Healthy food choices Indians make

Lessons to learn from the healthy food choices of communities across India

As you get increasingly bombarded with generic junk food, you may have become more used to overlooking the nutritional benefits steeped in the rich food habits of various communities than you'd want. From the choice of ingredients to methods of cooking, there's a lot to learn from indigenous food culture, say experts.

Nutritionist Sheela Tanna considers makai ki roti and sarson ka saag as one of Indian cuisine's healthiest combinations. "It works even better for those on a gluten-free diet. The Punjabis' love for lassi, curd and paneer is worth borrowing from, especially for vegetarians. Also, tandoorgrilling is a terrific form of cooking that cooks the food fast while sealing in all the nutrients. Don't ruin it, though by adding butter."

But while jotting notes on delicacies across India, you may have to wait for the right weather. Chef Joy Bhattacharya of Trident says a lot governs the wide spectrum of Indian cuisine — from the locals adapting to the region's natural produce (abundance of coconut-based seafood on the coasts of Tamil Nadu and Kerala) to foods that suit their climate. "The Kashmiri Wazwan, for instance, is liberal in its use of whole spices that keep your body warm.

Likewise, Kahwa (Kashmiri green tea) is a mix of crushed spices which warm your system. While having such Kashmiri staples may not be ideal at other times in Mumbai, you can certainly try them this winter."

Bhattacharya points out how Rajasthani cuisine, which hovers around accompaniments that last longer, can teach us about beating the microbes. "Since the weather there is dry, Rajasthanis don't keep their chutneys wet. So, the lasoon ki chutney or bajre ka choorma is kept dry to save it from catching air or moisture, and thereby going stale."

Traditional trove

Foods can be both, delicious and healthy if we retain the authenticity, feels Tanna. "We must not be swayed by this urban fixation to top everything with butter or cheese. While Gujarati fare gets flak for being fatrich, authentic Gujarati food has everything tossed on a charcoal-fired sigdi — wheat rotis, bajra rotlas, potatoes, sweet potatoes, and brinjals.

Being oil-free, these are extremely healthy." As for choosing oils, food writer Vikram Doctor finds the hoopla over olive oil "infuriating", given the amazing variety of healthy cooking oils India offers. "People are falling over each other to buy olive oil without knowing if they are buying genuine ones. However, they have neglected the health benefits of various kachi ghani (pure) oils that each community prefers to use, like sesame or mustard oil," he says.

Bengali cuisine, which uses a lot of mustard oil (good fats, increases appetite), is known for its fixation with fish. "Not only do Bengalis eat a lot of fat-free, first-class protein in the form of fish, they eat it right by using it as a curry with rice or steaming it, which even the Parsis do with their patra fish. By frying fish, you lose out on a lot," Tanna says. What also underlines Bengali food are the use of coconut milk (strengthens bones) and panchphoran masala (a spice blend of equal proportions of fenugreek, fennel, kalonji, jeera and dry coriander), says Bhattacharya. "Apart from the flavour, all the spices have health benefits. Fenugreek lowers sugar levels, and fennel has digestive properties," he adds.

Variety in diversity

While the US has one kind of millet, we have almost a dozen such as jowar, bajra, nachni, kuthu, amaranth, jhangora and varai, says Doctor. "While

these are often overlooked, you can fortify your diet by making flour out of them, or by cooking them broken or whole," he says.

Consulting nutritionist Shwetha Bhatia points out the use of healthier rice variants — parboiled rice (ukada chawal) and red rice — in the South. "Maharashtrian and Gujarati food relies on peanuts, which are high in monounsaturated fats, fibre and niacin, and jaggery which is a good digestive," she says.

Sour quotient

In fact, it's the assemblage of nourishing ingredients that's common among Indian cuisines. In Maharashtra, misal, for instance, packs in a nutritive mix of pulses like matki, moong and chana. Doctor also stresses on the importance of varied souring agents. "In Tamil Nadu, it's tamarind. Maharashtrians use kokum, Gujaratis use curd. In the North, it's anaardana or amchur. Since a lot of our food is starchy, the acid in the sour offsets that," he says.

Recipe: Kaju jeera rice

A little experimentation can do wonders, especially when it comes to cooking techniques. While delectable jeera rice has been a great dish, addition of kaju (cashew) to it has changed its entire flavour. Here's what you need to prepare it...

Ingredients:

2 cups of rice
1 table spoon ginger-garlic paste
1 table spoon tamarind (imli) paste
1 onion
Black salt (as per taste)
Ghee/butter or cooking oil
100 gms cashew nuts
2 cloves
2 cardamom pods
2 table spoons of jeera
5 table spoons of cashew nut paste

How to prepare it:

- First of all clean the basmati rice manually and later soak them. Wait for 20

minutes.

- While the rice is being macerated, heat oil/butter ghee in a different pan. Add jeera to it and keep the gas on low flame.

- Soon add sliced onion and add tamarind, ginger and garlic paste. Keep frying for some time. Later, add cashew paste.

- After it's done add dry cloves and cardamom pods. Fry it for a minute. Also, add salt in a quantity that it's sufficient for the rice as well.

- Add two cups of water and mix it well. Bring it to boil and then close the lid of the pan and wait for the water to dry.

- While the rice is being cooked take butter in a small pan and heat it. Soon add cashew nuts to it and fry it. Wait till it gets golden.

- Take out the fully done rice in a bowl and garnish it with fried cashew nuts.

Recipe: Chicken (no butter) masala

Your favourite butter chicken but without the butter and added calories!

Ingredients

250g boneless chicken
2tbsp rapeseed oil
1 medium red onion
3 large tomatoes
½ cup cashew nuts
100g tomato puree
1 tbsp dried fenugreek leaves
100ml low fat cream
1tsp garam masala
1tsp red chilli powder
1tbsp ginger- garlic paste
2tbsp thick low fat yoghurt
Salt to taste

Method: Marinate the chicken with the ginger garlic paste and the yoghurt for 20 min. Soak the cashew in warm water for 15 minutes.Chop the onions and tomatoes. Heat 1 tbsp oil to a pan. Sear the chicken pieces in the hot oil

for 1 minute on each side to a golden colour. Remove the chicken pieces. In the same pan, add 1tbsp oil and the chopped onions. Saute till a translucent pink. Add the tomatoes, red chili powder, garam masala powder and cook on medium flame till the tomatoes are tender (approx. 4-5 minutes). Remove from flame and run in a blender with the soaked cashews to make a smooth paste. Return to the pan and add the tomato puree. Bring to a boil and add the chicken pieces. Simmer for 4-5 minutes till the chicken is cooked. Add the low fat cream and simmer for 2 minutes. Broil the fenugreek leaves on a pan. Crush the fenugreek leaves over the curry and remove from fire. Serve hot.

Vatsal Seth's paneer makhni

My earliest memory of food: As a child, I'd throw a lot of tantrums at the dinner table and would never want to eat my food. Now, I find it really silly.

My favourite recipe: Paneer makhni because my mom makes it the best.

A food item that makes my mouth water: Aloo kisabzi is my favourite. I want to eat it all the time. At the moment, I can smell its aroma!

When I have the kitchen to myself, I like to cook: Nothing more than a cup of masalachai. I don't think I can ever be a good cook.But I am a big foodie.

My cooking experiment: Inspired by journalist and food writerNigella Lawson, I had once prepared a dessert and it turned out to be quite delicious.

On the sets, I often eat: Homemade Gujarati food.

The best meal I have eaten till date: According to me, the meal that you eat, whenever you are hungry, is the best.

My dining preferences: With my friends and family, I often visit fast food joints. I am not the `fine dining' kind of person. I enjoy fast foods and chaat a lot more.

One food item I'd never wish to give up: Tres leches. It is a light and fluffy sponge cake that uses four types of milk and is topped with whipped cream. Try it!

Paneer Makhni

INGREDIENTS:

Cottage cheese: 200 gm, Tomatoes (medium, ripe): 4 to 5, Dairy cream: 2 to 3 tbsp, Butter: 2 tbsp, Bay leaf: 1, Ginger garlic paste: 1 tsp, Red chilli powder: 12 tsp, Green chillies (slit): 1 to 2, Garam masala powder: 14 tsp, Honey: 1 tsp, Ginger (julienned): 12 inch, Kasuri methi: 12 tsp, Water: 1 1/2 cups, Salt to taste

METHOD:
Chop the tomatoes, and make a smooth puree in a blender. Keep it aside. Melt butter in a pan. Add bay leaf and saute for a few seconds, till aromatic. Add the crushed gingergarlic paste and saute for a minute. Mix the tomato puree and stir well. Add chilli powder and stir on a low flame.Pour in some water and add the slit green chilies and ginger. Stir and let it simmer for a minute. Drizzle honey, salt and kasuri methi. Add the paneer cubes and let them cook for a few minutes.Lastly, add cream and gently stir. Serve hot with roti, naan or jeera rice.

Recipe: Prawn malai-curry (Bengali)

Debajyoti Mishra says bhog is the best pointer to a good Puja Idol, pandal and ambience are the markers -separat ing wheat from the chaff -when it comes to Puja. But when Debajyoti Mishra was young, the sole pointer to a good Puja was its bhog. "We even knew where the even knew where the begun or the kumro bhaja tasted better and would invariably land up in a group," recalls the composer. Rolls, at that time, were not an option and all one could gorge on were oil-soaked Moglai parotas. "But it was home food that ruled the roost," he says.

Mahalaya onwards, it was a celebration of Bengali food at the Mishra household. "On Ashtami, mutton would be cooked at my grandmother's house. It was cooked without onions and would be sent, in moderate portions, to all the neighbours. Even if we fell short of meat, the jhol was enough for a meal."

Debajyoti would accompany his uncle to the meat shop, which was no less than a ritual. "There would also be luchi, sada bhaat and aloor dom," he says. With brass vessels spread all around, his grandmother would sit to cut thor into tiniest of pieces. "Thakuma would put oil on her fingers before starting the task, but she always ended up with a blackened thumb. From daler bora, neem pata bhaja, mocha -she would prepare a lot of delicacies. And before Laxmi Puja, naru, moa and takti would be made. We youngsters would swarm around Thakuma like flies."

If ever Debajyoti managed to save money from grocery shopping, he would go out with friends to have kachuri from a Bhowanipur shop. "At that time, crossing Rashbehari was a big thing." Debajyoti says he picked up cooking from his grandmother. "My mom was an assistant to her. If ever I complimented my mother, she would say, `Tor thakumar moto hoyni'.On Thursdays, she would have veg food and Gondhoraaj rice was one of the many variations that would be cooked".Debajyoti was also influenced by his guru Salil Chowdhury . "He was benevolent when it came to teaching notations but miserly about sharing recipes. But I'd quietly see him cook from a distance; watch him add rum to spice up a chicken dish." The composer still tries cooking in the evenings during Pujas. "I make pulao, kash miri chicken, radha ballabhi, aloor dom and chingrir cut let. After all, Puja is all about eat ing to your heart's con tent," he adds.

INGREDIENTS

Prawns: 1 kg
White oil: 150 gm
Onion: 4
Cinnamon stick: 2
Cloves: 4
Cardamom: 6
Whole cumin: 12 tbsp
Ginger paste: 2 tbsp
Cumin paste: 2 tbsp
Cumin powder: 2 tsp
Kashmiri chilli powder: 1 tsp
Turmeric powder: 12 tsp
Sugar: 1 tsp
Garam masala: 1 tsp
Coconut milk: 2 cups

Ghee: 2 tsp
Coriander leaves (for garnishing): 5-6
Basmati rice: 500 gm
Gondhoraaj lebu: 1 with leaves Salt to taste

PREPARATION

FOR THE CHINGRIR MALAIKARI

Clean the prawns with warm salted water and marinate with 14 teaspoon of turmeric powder and 14 teaspoon of salt along with a pinch of onion, ginger and cumin flakes. Prepare a paste of onion and ginger in a mixer. Heat ghee in a kadai or pan and fry the prawns till they turn golden brown. Keep them aside in a bowl. Add cinnamon, cardamom, cloves and bay leaves to the oil. Add the paste of onion and ginger and fry it on medium flame for 4-5 minutes.

Add remaining turmeric powder, kashmiri chilli powder, salt and garam masala. Add coconut milk and 12 cup of water and bring it to boil. Cut the green chillies and add them to the gravy along with the fried prawns.

Allow it to cook for 5-6 minutes. You can garnish it with coriander leaves and add some coconut flakes. The chingrir malaikari is ready to be served.

FOR THE GONDHORAAJ RICE

Soak the basmati rice for half an hour in water and keep aside. Put water in a pan as per requirement and bring it to boil. Add a pinch of salt, one spoon of gondhoraaj juice, one small piece of gondhoraaj rind, two gondhoraaj leaves and one spoon of ghee to the boiling water and add the soaked rice. Serve the cooked gondhoraaj rice with malaikari.

Recipe: Mango Smoothie

It will refresh you instantly

Ingredients:

One tbsp mango jam, 250 ml beaten yogurt, half tsp clove powder, crushed ice

Method: Blend a spoon of softened mango jam with beaten yogurt in a glass. Pour this mixture over crushed ice and sprinkle clove powder over it.

DECCAN Chronicle

Last harvest for farmers in the new capital of Andhra Pradesh

There are 19 villages in the Tullur mandal on which paddy, chilli, cotton, millets, vegetables and fruits are cultivated on 33,247 acres. Picture used for representational purpose. (Photo: DC)

Guntur: While Chief Minister N. Chandrababu Naidu is planning a joy-filled Sankranti in the capital region, landowners here, attached to their farmlands, are giving a sorrowful adieu to their crops this harvesting season.

Farmers were seen silently cutting and packing their harvest in the farmlands of the capital region villages of Tullur, Venkatapalem, Mandadam etc.

The farming community would bring the harvest home in the first week of January and would celebrate Sankranti for four days.

This Sankranti, however, will be the last harvest festival for the farmers of the capital region as the CRDA will not allow any cultivation after handover of the land for the new capital.

Farmers in several villages are cutting their crops, knowing that this will be their "last harvest".

There are 19 villages in the Tullur mandal on which paddy, chilli, cotton, millets, vegetables and fruits are cultivated on 33,247 acres.

A farmer, Ch. Prasad, said that they were happy with the establishment of the new capital but were sad that they were harvesting their last crop.

N. Venkateswarlu and other farmers of Dondapadu said that they were experiencing sleepless nights thinking this would be the “last harvest” of their lives.

They said that they treated their land as their children and they could never forget cultivation. They added that they would have to struggle for some period to start a new life without cultivation.
Revenue and CRDA officials meanwhile say it would take around three to five years for establishing the new capital. These years would be a transformation period for the farmers to adapt to other professions.

Festival sops leave sour taste

The AP state civil supplies department has warned wholesale and retail marketers not to hike prices.
Hyderabad: With largescale evacuation of stocks of six commodities in packet form (laminated pouches), which will be given as free gifts to BPL families under the Chandranna Kanuka scheme, from the whole sale market, prices of jaggery, wheat flour, red gram, palmolein oil, Bengal gram and ghee are likely to go up during Sankranti.
The AP state civil supplies department has warned wholesale and retail marketers not to hike prices. The gift packs, worth Rs 220, will include half-kilo each of red gram, palmolein oil and jaggery, one-kilo of whole Bengal gram, wheat flour and 100 gm of ghee.
According to the civil supplies corporation chairman and managing director B. Rajashekar, all six commodities are being procured from the National Commodities and Derivatives Exchange Limited platform through e-reverse auction.
As the scheme was okayed at the 11th hour , the civil supplies department did not have the option of getting a better price through the regular tendering process.

Jaggery is specially used to make “arisalu” during Sankranti and due to the increased demand, prices increase during the festival.

As the government has procured 6,503 metric tonnes, there are no stocks in the wholesale market. This will impact the retail market in the next few days.

The suppliers who participated in the e-reverse auction in NCDEX have siphoned stocks of these commodities from the market. In the span of a week, the price of low-quality jaggery has increased from Rs 1,200 to Rs 1,300 per 33 kg.

Due to non-availability and increased price, the state government has now dropped “cow’s ghee” from the gift list and replaced it with “buffalo ghee”, said Mr Rajashekar.

“We have procured the commodities and we are in the process of moving them to the points of the public distribution system. Most of the direct producers didn’t participate in the e-auction.

Producers will, in turn, procure from different agencies, suppliers within the state and outside the state too.

This should not affect the open market as we are not evacuating entire stocks. But we have some feedback that they may increase the price in the name of this scheme.”

P. Damodar Rao of Hyderabad, a wholesale supplier of wheat, said, “Big agencies had approached us for 500 tonne of wheat, but we do not have the stocks.”

A jaggery producer Ankamaiah of Srungarapuram said, “The price has been increased by Rs100 per 33 kg in the past few days. At this point of time it was not a big hike. But it depends on open market demand as the festival approaches.”

THE HINDU BusinessLine

Why cocoa is piping hot

It has spiked up on fears that the world isn’t producing enough of it for chocolates

What would we do if the world ran out of chocolate? This was the fear that haunted world cocoa markets for much of 2014, causing bean prices to rise over 5 per cent for the year, even as most other agri-commodities suffered a rout. This is, in fact, a hat trick for the commodity, which also made gains in 2012 and 2013.

A tight supply situation has been propelling global cocoa prices upwards for three years now. Data from The International Cocoa Organisation (ICCO) show that even as the world cocoa crop shrank by 5 per cent in 2011-12 and by 3.7 per cent in 2012-13 (the cocoa season is from October to September), grindings (which indicate consumption) grew by 1 and 3.5 per cent respectively for the same years.

In the just-concluded season (September 2014), production rebounded by 10 per cent, but then demand has grown too. In the upcoming year 2014-15, some forecasters again expect the cocoa markets to face a deficit upwards of 1 lakh tonnes.

As with most other commodities, the rising global demand for cocoa is driven mainly by expectations of higher consumption in the Asian markets of China and India. One study has it that, while the average consumer in Germany, the UK and Switzerland consumes anywhere between 9 and 11 kg of chocolate per year, Indians and Chinese have historically made do with a frugal 100 gram or less. However, increasing affluence in these countries is now expected to drive a growing appetite for the food of the gods.

Large global agri-trading companies such as Cargill and Olam International, taking note of this trend, have in fact been setting up new cocoa grinding facilities in Asia to cater to the surging demand from chocolate manufacturers situated in these regions.

Market dynamics

Amid already tight demand-supply dynamics, two additional sentimental factors have fanned global cocoa prices in 2014. With over 70 per cent of world cocoa production originating from Africa, the Ebola outbreak in the continent has periodically spooked markets. After starting the year at sedate levels of $2,820/tonne, in September 2014, global cocoa prices surged to over $3,370/tonne, a three-year high, on fears that the Ebola epidemic would severely curtail cocoa supplies from the two key producing nations of Ghana and Ivory Coast. Fears of El Nino anomalies making a late appearance and reducing yields have also stoked periodic price spikes.

According to a November 2014 report from the International Cocoa Organisation, cocoa arrivals in Ivory Coast from the start of the season (October 1) until December 7, were 13 per cent lower than previous year’s levels.

Cocoa offered for sale at Ghana was reported to be about 19 per cent lower in the first three weeks of the season. But with shipments since improving, global cocoa prices moderated to $2,970 levels by end December. While the supply deficits in the global cocoa market don’t appear likely to go away anytime soon, the market is presently in the grip of frenetic unwinding. The

Ebola and El Nino fears in the last quarter of 2014 had prompted large global grinders and chocolate producers to raise their emergency stocks of cocoa beans in August/September. Now, with much of their demand front-ended and with speculators exiting the commodity, demand for cocoa has moderated in recent weeks, helping cool global prices. Relentless price increases on cocoa over the last three years have also forced chocolate majors such as Hersheys and Mars to announce a 7-8 per cent increase in product prices in October 2014, the first such increase since 2011.

Outlook

There has no doubt been an irrational element to the runaway surge in cocoa prices in recent months. In fact, the ICCO has been at pains to cool irrational fears about the world running out of chocolate.

So, what's ahead for the much sought-after bean in 2015? Well, while the production outlook will certainly change through the year, demand appears likely to remain firm. With the US economy on the mend and India and China expected to grow at 6 and 7 per cent, respectively, chocolate demand this year may be on a firmer wicket than last year. And despite a record crop in Africa, world stocks of cocoa remain not very comfortable.

According to the quarterly forecast published by the ICCO in August 2014, the cocoa year 2013-14 saw the stocks-to-grindings ratio at 38.9 per cent, registering a sharp fall from 46 per cent two years ago. The ratio, one of the lowest in the last 10 years, is an indicator that the world still isn't producing quite enough cocoa to comfortably satisfy burgeoning demand, a bullish signal for prices.

'Imports, a serious threat to domestic rubber industry'

Coimbatore, January 4:

A fortnight ago, the Kerala Government brokered an agreement by getting 15 tyre companies to buy natural rubber (NR) from the local market.

According to the agreement, tyre makers would buy from the local market at a price equal to international price, plus import duty and state taxes.

Rubber growers in Kerala, the largest rubber producing state in India, say there has been some improvement on the price front since then. But not all are happyThe scheme was supposed to be linked to Bangkok price. But that is not happening, N Dharmaraj, Chief Executive, SBU(A), Harrisons Malayalam Ltd, told *Business Line* in an interview. "We intend taking it up with the Government," adds Dharmaraj, who is also the Vice-President, United Planters' Association of South India. Edited excerpts:

Your view on the recent agreement between the Government of Kerala and tyre manufacturers…

We welcome this move and appreciate the Chief Minister's (Oommen Chandy) intervention.

This has helped shore up the domestic prices of NR, which has been reigning well below the cost of production for more than six months.

It's important that this well-meaning scheme (aimed at helping the growers and supported by the consumer industry) is not misused by the intermediaries.

It's noted that in this package benchmarking has been done between international RSS 3 (Bangkok) with domestic RSS 4, although import is taking place in the form technically specified rubber such as ISNR 20…

RSS 4 is technically superior to ISNR grades.

RSS 4 forms the backbone of the rubber farming economy in Kerala as indeed it would be for the North-Eastern states, where rubber cultivation is being promoted.

This is because RSS 4 can be made in the backyards by the farmer with least cost thereby enabling a high farm gate price.

We understand that the arrangement chalked out by State Government is till the end of March 2015. What do you think will happen to NR prices after that?

It's very evident that with the stated gap of 1.4 lakh tonnes between production and consumption, imports to the tune of 3.6 lakh tonnes (this will touch 4 lakh tonnes during the current fiscal) are a serious threat to domestic production industry.

Duty and other structures to ensure parity between imported NR and local RSS 4 prices with sufficient safeguards are in the best interests of the entire supply chain, supporting the farming economy and ensuring sustainable supply of raw materials at stable prices for the consuming industry.

Reducing dependence on imports is important from a national economic perspective.

Your view on Indian block rubber industry?

Block rubber in the Indian context is a cup lump product and it is not in the interest of the farmers to produce this beyond a limit of 25 per cent and consequently drive themselves lower down the value chain.

What is your view on the inverted duty structure of finished goods?

We support a higher duty structure for finished goods. Non-tyre industry in particular needs a rebooting.

Rouble woes: tea industry seeks rupee payment system with Russia

New Delhi, January 4:

A sliding rouble has Indian exporters nudging the Commerce Ministry to institute a rupee payment mechanism for trade with Russia. The Indian tea industry, for which Russia was the largest export market in 2013-14, is set to take the agenda forward, with a delegation likely to visit the sanctions-hit country next month.

"We had a session with the Tea Board Chairman on January 1, and the rupee-rouble trading mechanism was one of the measures discussed," said Monojit Dasgupta, Secretary General, Indian Tea Association (ITA). "A February visit of a delegation, comprising association officials, has been planned to get clarity on the same. We would like to preface our discussion on commercials with our Russian import partners about how such a system might work."

Data provided by the Tea Board of India for April-September 2014 indicate that Indian tea export to Russia was largely unchanged at about 18 million kg compared to 18.76 million kg a year ago. Prices offered for Indian tea were about Rs. 161 a kg, down from Rs. 176/kg in 2013, after a sharp drop in crude prices and the rouble's value erosion.

Easing trade worries

The rupee payment mechanism will allow Russian importers, currently struggling to acquire dollars, to settle payments in rupees with banks in both countries, facilitating accumulation of claims under a central arrangement. India has a similar arrangement with Iran.

"There is already a joint working group comprising members of both central banks who are working on the subject. The ITA has requested the Tea Board to seek an early resolution to the arrangement," Dasgupta told *Business Line* .

Data for October-December, to be out in January, are likely to reflect an overall drop in Indian tea exports to Russia by about 14-15 million kg this season. "If the rupee payment system is put in place, it will certainly give us an edge in Russia this year," he added. Sources said the Federation of Indian Export Organisations (FIEO) will soon send a formal representation to Commerce Minister Nirmala Sitharaman on the payment mechanism.

Less orthodox supply

Russia imports both higher-quality orthodox, also popular in Iran, and crush-tear-curl tea from India. Dasgupta said orthodox production was lower this season due to poor rainfall between May and August in major tea growing

regions, such as Assam and in the Dooars. Short supply has hurt exporters further. Domestic orthodox prices are about Rs. 192/kg this season, down from Rs. 213 the season before.

Stiff competition from Kenya, which produced 432 million kg of tea, a record crop for the second consecutive year, is also challenging Indian exporters. Indo-Russian trade in 2013-14 stood at $6.01 billion with coffee, tea and spices accounting for $117 million.