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Green technicians on an organic mission

Interested in organic farming, but don't know how to go about it? The Green Technicians are here to help you.

The Green technicians are a group of experts who have been trained under the aegis of the Kudumbasree Kozhikode District Mission as part of its 'Jaivajyothi 2015' programme to promote organic farming across the district. A hotline number to reach them will be announced during the launch.

The group will function as an entrepreneurship unit under the District Mission. Their service will be available to the people and residents' associations besides agri-entrepreneurs of Kudumbasree.

The first mission of the Green Technicians is to take up organic farming in 1,125 acres of barren land identified by the block coordinators during a survey conducted as part of the Centrally sponsored Mahila Kisan Sashakthikaran Pariyojana (MKSP).

They will also aid the farmers in terrace farming, production and refilling of grow bags, applying fertilizers, production and distribution of organic pesticides, biocomposting, raising and care of high yielding varieties of saplings in nurseries and sale of organic products.

The Green Technicians were selected from children of Kudumbasree members in the district who had completed VHSC Agriculture. The 24 technicians were shortlisted from 131 applicants through interviews, group discussion and orientation class. The final training for the technicians was held on September 15 and 16.

The 24-strong brigade, with the slogan 'Non-toxic organic farming: a healthy society,' will be launched on September 25.

Agri mall to come up at Mamom coconut complex

An agri mall will be built at the Mamom coconut complex at a cost of Rs.3 crore, Minister for Agriculture K.P. Mohanan has said.

He was speaking after inaugurating a virgin coconut oil production unit as part of reopening the Mamom coconut complex at Attingal here on Wednesday. Mr. Mohanan said the NABARD would provide assistance for the agri mall project. More value-added products from coconut would be produced at the Mamom complex.

He urged farmers not to abandon coconut cultivation. Procurement of raw coconut by the government through Krishi Bhavans had come as a relief to farmers. The farmers were being given Rs.26, and this would go up, he said.

52 lakh farmers to get soil health cards

They would help reduce input cost for farmers in addition to giving better yield, says Pocharam

Minister for Agriculture Pocharam Srinivas Reddy said that the government will distribute soil health cards to about 52.37 lakh farmers in the next one year.

Addressing farmers after formally distributing soil health cards at Gajwel constituency on Wednesday, Mr. Srinivas Reddy said that this programme was launched for the first time in the State. "The farmers can know about the health conditions of their soil. This was taken up on an experimental basis at Gajwel in Medak, Indravelli in Adilabad and Timmajipet mandal in Mahabubnagar district. The responsibility of soil testing was entrusted to a consultancy. Now the farmers can take up farming that suits the land instead of going for other crops," he said. The Minister said that this would reduce the input cost for farmers in addition to giving better yield.

Informing that there are about 1.15 crore acres of land out of which 70 lakh acres are rain-fed and 45 lakh acres under borewells, wells and irrigation projects, the Minister said that these cards would be extended to all the 52.37 lakh famers across the State in the next one year. Stating that stabilisation of support price and insurance are in the hands of Union government, Mr. Srinivas Reddy said that they have proposed Rs. 3,941 for a tonne of A grade paddy followed by Rs. 3,079 for B grade and Rs. 2,750 for maize to the Union government. He said that organic farming would be taken up in 15,000 acres under Paramparaagat Krishi Vikas Yojana.

K. Prabhakar Reddy, MP, B Hukya Naik, JD Agriculture, and others participated in the programme.

Scientifically-grown and processed tea soon

After Dooars and Darjeeling, new areas in Bengal to produce tea



Quality Indian tea will no more be limited to the likes of Assam and Darjeeling.

Quality Indian tea will no more be limited to the likes of Assam and Darjeeling as IIT is helping new areas in Kharagpur and Purulia to produce scientifically-grown and processed tea.

At a small tea garden inside the campus, IIT-Kharagpur researchers have demonstrated how organic tea could be grown scientifically even in the plains and then the leaves processed in a cheaper way with their newly patented energy-saving machine.

In the vicinity of the campus, the Science and Technology Entrepreneurs Park (STEP) at the IIT, has identified 17 villages where commercial tea cultivation would soon begin.

"Tea cultivation will begin in non-traditional areas of south Bengal using new scientific methods. We are targeting small farmers with 5-10 cottah of fallow land. This will uplift the rural economy as well," STEP's Managing Director and Biotechnologist Satyahari Dey said.

Under a project funded by the Tea Board, a team of scientists led by Professor Bijoy Chandra Ghosh of the Agricultural and Food Engineering Department has developed new CTC (crush, tear and curl) machines, which occupy less space and consume less energy.

"The existing technology used everywhere in India and even outside, is a century old. Our technology is very innovative and patented. It will reduce the cost of tea processing by about 20-30 per cent," Ghosh said.

They have already demonstrated the technology to small tea growers who were welcoming it.

"We are confident that this machine will change the tea industry forever due to cost savings," Confederation of Indian Small Tea Growers' Association (CISTA) President Bijoy Gopal Chakraborty said.

Tea cultivation will begin in non-traditional areas of south Bengal using new scientific methods.

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A silver lining in times of distress



Reaping it rich: The farmers who grew a diverse mix of 18 traditional crops including jowar, foxtail, finger and barnyard millets and pulses on their land.

It is proven that farmers growing traditional crops have a sort of immunity from sliding into crisisP. V. Satheesh, Director of Deccan Development Society.

It is proven that farmers growing traditional crops have a sort of immunity from sliding into crisis, says P. V. Satheesh, Director of Deccan Development Society.

Amidst gloomy reports of 1,400 farmers committing suicide all over Telangana this kharif, 145 of them in this near bone-dry district alone, the scene here offers a glimmer of hope. No farmer from this and other villages raising time-tested traditional crops has shown such tendencies.

Surprising but reasons are not hard to seek for this study in contrast. While a switch to capital, water, input intensive crops seemed to have drawn more and more farmers into abyss of suicides, those from Nagvar, Yelgoi, Hoseeli, Tekur and Ippapalli villages in as many mandals who have continued to grow hardy age-old millets requiring much less natural and financial resources survived worst of the times. In retrospect, growing such crops seem to have lent them a dependable protective ring, virtually guarding them against suicides.

Vinoda of this village in Raikod mandal is one such example. She has grown a diverse mix of 18 traditional crops including jowar, foxtail, finger and

barnyard millets and pulses on her three acre land. The investment she made was minimal Rs. 12,000, using her own seed and fertilizer. Yet she is expecting a bountiful crop of millets in a month or two which could fetch her about Rs. 1 lakh.

"My farm gives me enough to take care of my family, besides ensuring fodder for my cattle." She never felt the need for sinking more borewells, the failure of which turned out to be one of the main reasons for farmer suicides in this drought-hit district that shot into fame for returning Telangana's first Chief Minister K. Chandrasekhar Rao.

In contrast, Yadaiah raised Bt cotton just besides Vinoda's farm, spending Rs. 50,000 on outsourced seed, fertilizer and pesticide, and may get Rs. 80,000, hardly enough to feed his family all through the year. With no food and fodder crops, he and his cattle cannot depend on the farm and a crop failure could turn him debt-ridden and make him vulnerable. Vinoda and Yadaiah stand out as contrasting symbols of crop choices and raise fundamental questions.

Raising farm productivity and crop production is for whom? Should food crops grown in healthy organic way be for local consumption or for others too? Should capital intensive commercial crops like cotton be encouraged at the expense of food crops threatening food security and farmer's life as well?

Like Vinoda, another traditional crop grower, Samamma, had the answer: By encouraging commercial crops which involve heavy expenditure, we are simply adding to our woes. Instead, if every farmer is given incentive to grow a mix of food crops, there will be enough to feed themselves and others, leaving no scope for suicides at all.

P. V. Satheesh, director of Deccan Development Society, which has been motivating farmers to grow traditional millets in several villages in Zaheerabad region and created an assured market for them says the remedy lies in going back to the roots. "The mistake we are making is to look at economic value of the crops to the exclusion of other parameters like nutrition value of the crop raised, the soil fertility, fodder for cattle, water consumption and environmental security."

Now that it is proven that farmers growing traditional crops have a sort of immunity from sliding into crisis, the government should boost their self-confidence by announcing incentive of Rs. 5,000 per acre and declare Telangana as a millet State to usher in "Bangaru Telangana," he adds.

Four new bee species found

Researchers have discovered four new bee species in the genus Euhesma in Australia.

These bees have evolved narrow faces and very long mouth parts to collect the nectar through a narrow constriction at the base of the flowers, said the study.

The fourth species belongs to a different group within this large genus and has a normally-shaped head, the researchers noted.

Bees matter

The discovery was made during the Bush Blitz surveys, Australia's largest nature discovery project.

Bees are important pollinators of crops , but habitat loss and pesticides is causing serious decline in their populations in many countries including in Europe and the U.S.

The conservation status of native Australian bees is largely unknown because solid baseline data is unavailable and about one-third of the species are as yet unknown to science.

In an attempt to make Australian native bees more accessible to the scientific community, researchers have now introduced a new Barcoding of Life project, 'AUSBS', which will be built to contain the barcode sequences of the identified Australian native bees.

The researchers intend to build on the existing DNA database to cover as many Australian species as possible.

"It is hoped that this will stimulate native bee research," said one of the researchers Katja Hogendoorn from University of Adelaide in Australia.

"With about 750 Australian bee species still undescribed and many groups in need of revision there is an enormous job to do," she noted. The new species were described in the open access journal ZooKeys.IANS

A slippery season for banana farmers

Banana farmer M. Thangaraj of Sirumugai was joyous.

He was ready to harvest the bananas in a few days. But the squall of September 4 changed all that. "It lasted only a few minutes and came at a time when the buyer was in my farm," he says.

Mr. Thangaraj is not alone. There are hundreds of farmers like him who suffered crop damage in Sirumugai, Thekkampatty, Jadayampalayam and other villages in the Mettupalayam Taluk, thanks to untimely rain.

According to official figures, 96 farmers have suffered crop loss. (The State Government takes into account only those farmers who have lost at least 50 per cent trees on an acre – that is roughly 550 trees or more).

The farmers in the area invest between Rs. 1.21 lakh and Rs. 1.37 lakh to raise an acre of banana but the State Government gives only Rs. 7,500 in compensation. And, only for those who have lost 50 per cent or more, clarifies M. Viswanathan, another banana farmer.

The farmers cultivate 'nenthran', 'kathali', 'robusta' or 'sevvazhi' varieties serving markets in Kerala, Karnataka, a few parts of the Andhra Pradesh and also Coimbatore and Tirupur. They get Rs. 26 for a kg of 'nenthran', Rs. 35 for a kg of 'kathali', Rs. 5 - 10 for a kg of 'robusta' and Rs. 25 - 30 for a kg of 'sevvazhi'.

The unseasonal squall caught the farmers off-guard, says Mr. Viswanathan. To cushion the loss from such unforeseen happenings the farmers can opt for crop insurance which they did, says Mr. Thangaraj.

"But we gave up because we did not stand to gain. Filing claims became difficult and getting money even more so, for the rule says that for farmers to get compensation, all farmers in a particular firka (a revision sub-division) should have suffered losses."

Grapes turn sour for farmers in Coimbatore



With nearly 2,000 acres of grape farms located towards the west of the city (Thondamuthur area) a decade-and-a-half ago, Coimbatore was among the major grape cultivation centres in the State. It still is. But, the area of cultivation has shrunk to 400 acres or less.

Apart from Theni and Cumbum, Coimbatore has a large number of farms growing the paneer variety of grapes (with seeds).

Almost 70 per cent of the produce goes to Kerala and the rest is sold in the local market.

Unseasonal rains in summer, fall in prices, and rising cultivation costs during the last two years have hit the grape growers.

Manickam, who has grown grapes for more than 30 years now, says that prices are just about Rs. 20 a kg as against Rs. 35 to Rs. 40 a kg when the market was good.

This is not enough to recover the investment.

Farmers spend about Rs. 1 lakh for every crop a year, he says.

According to Rayappan, another grape grower, there should be a consistent market for grapes from Coimbatore. Farmers now sell at the offer quoted by the buyers.

M. Vijayan, president of Coimbatore Grape Growers' Association, says that unseasonal rains in the district last year and this year have hit yield.

Farmers are shifting to other crops and area under grapes is coming down as they are unable to get better price.

"We have two crops a year. But the shelf life of this variety of grapes is less. It cannot be stored in cold storage. Hence, we are unable to provide regular supply to our buyers," he says.

Cost

Cultivation costs are also going up. Grape growers in the district shell out about 50 per cent of the investment towards labour.

Though nearly 10,000 acres are under grape cultivation in the State, there is no research centre here.

Farmers need to go to Pune or Karnataka for any guidance.

The Government should support the grape farmers here with inputs for increasing the shelf life, tapping new markets, etc., he says.

Palmarosa oil extraction plant proposed in Dharmapuri

For the vast area of palmarosa cultivated lands across three blocks of Dharmapuri, the administration's initiative to promote this ozone-friendly lemongrass may quite literally be an oxygenator.

This intervention has come in the form of a State Planning Commission grant of Rs.20 lakh for a proposed palmarosa oil extraction plant here. The aromatic lemongrass has over 3,000 cultivators in Nallampalli, Dharmapuri and Morappur blocks. Today, organised as a Farmer Producer Group (FMG), the farmers are the beneficiary of the State Planning Commission grant.

As the International Ozone Day was marked in varied ways across the State, the administration tapped in on the theme of Palmarosa as an ozone- friendly alternative to chemical aromatics and inaugurated two ozone parks with palmarosa saplings.

The idea of palmarosa to symbolise ozone protection is pretty straight-forward, says Collector K. Vivekanandan. Palmarosa has significant aromatic value. The unit proposed under the State Planning Commission grant is essentially a boiler plant, where the grass is reduced to a concentrate. Palmarosa has an array of uses - from perfumes and room fresheners, to use in hand wash and perfumed candles.

Ozone Depleting Substances (ODS) in perfume sprays and other cosmetics can be curbed by use of home-grown naturally available aromatic compounds. Palmarosa oil can be used for varied purposes and there are small units that are already purchasing the grass from farmers for incense sticks.

"The Ozone Park is conceptualised on lines of an "oxygen factory" that might evoke the curiosity among people who visit the collectorate. We are simultaneously listing out other ozone supporting plants and a certain type of Tulasi falls under this category," says the Collector.

Also, taking cue from the rare endangered threatened species list, the administration has planned to identify traditional plant species that may now be on the brink of extinction, and revive their growth through the forest department.

While the ozone park at the collectorate is of demonstrative value, the administration has pitched a higher note with a proposal to set up 'Bhima Bamboo' plant enclaves in high traffic zones.

This special variety bamboo has high carbon sequestration ability (four times the ability to absorb carbon dioxide from the atmosphere) and has quick growth. The Forest Department has already commissioned in growing saplings for the proposed Bhima bamboo enclaves.

'Fisheries sector strengthened by KUFOS'

Minister for Fisheries K. Babu said that Kerala University of Fisheries and Ocean Studies (KUFOS) was playing a major role in the fisheries sector of the State.

Shrimp farming

The University's move to promote vannamei shrimp farming in the State would help popularise the shrimp variety and to end scepticism among the shrimp farmers in the State, he said inaugurating the main gate of KUFOS.

He said that the State government would provide all assistance to KUFOS to make the University a centre of excellence in fisheries and ocean studies, he added.

New rules for compulsory solar rooftops in 3 months

They entail a marginal increase in overall cost for builders and consumers

A solar rooftop power plant installed on the terrace of a house.— File Photo.

The Tamil Nadu government is likely to come up with rules for implementing mandatory solar power installations in high rise buildings and group development projects in the next two to three months.

Chief Minister Jayalalithaa said in the Assembly on Tuesday that solar power installations would be made compulsory for high rise housing projects.



Amendment to regulations

"We are working on the amendment to the regulations. It will be done in two to three months. We will also work with the Tangedco to work out detailed guidelines and see how much energy can be fed into the grid," Housing and Urban Development Secretary, Dharmendra Pratap Yadav, told *The Hindu*.

Mr.Yadav said the size of the solar plants, the space available on the roofs and evacuation facility available will be taken into consideration while framing the rules. The planning permission for multi-storeyed and group development projects will make solar power mandatory from the date of amendment to the rules, he said, adding presently there was no plan to retrospectively enforce solar power generation in high rise buildings.

An expert on solar energy said a solar power system would entail only a marginal increase in overall costs for builders and consumers.

"For a Rs.200 crore project, installing a 100 KWh solar plant would entail, may be around Rs.70 lakh. This is miniscule. However, for smaller projects, the cost might be higher and house owners might not get enough savings from solar," he said.

Also, solar power plants in residences generate power only during the day time, when most people won't be at home, he said. "So, there needs to be a mechanism to use that power, for example, a battery back up or a banking arrangement. They can evacuate the power during day time and probably take power from the grid in the evening," he added.

Good option

Ajit Chordia, President of Confederation of Real Estate Developers Association of India, Chennai, said, "Solar rooftops are a good option and more viable for commercial purposes. When it comes to residential you can only do it at high rise buildings. Technically it is not possible in smaller buildings. Usually third parties are hired to install it and the cost is shared."

Solar power system would entail only a marginal increase in overall costs for builders and consumers, says an expert.

Egg price remains stable

Wholesale price of egg in Namakkal Zone continue to remain at Rs. 3 here for the past one month. As per the National Egg Coordination Committee (NECC), the wholesale price of egg dropped from Rs. 3.07 to Rs. 3 on August 22 and continues to remain at the same price till September 17.

Due to festival seasons in the North India, the demand was low and hence the price remains at Rs. 3.

Officials said that the price is further expected to drop further with the beginning of the auspicious month 'Purtassi' on September 18.

Sudheeran seeks timely distribution of benefits to farmers

KPCC president V.M. Sudheeran said on Thursday that the farmers' demand for increasing the procurement price of paddy and coconut would be brought to the notice of the government. The UDF government had been following a farmer-friendly attitude, he said. He was inaugurating a farmers' meeting convened by Kerala Pradesh Karshaka Congress at Mampuzhakkari, near here.

Mr. Sudheeran said there should be arrangements for distributing the procurement price in a time-bound manner and a situation which compels the farmer to resort to agitation should be avoided. Import of coconut oil should be curbed to help the coconut farmer get better price for the produce. He also lauded the Chief Minister's intervention to resolve the Munnar labour issue.

Organisation district president P.T. Scaria submitted a memorandum seeking increase in procurement price of paddy to Rs.21 per kg and Rs.30 for coconut. K.C. Venugopal, MP, A.A. Shukkoor, Lathika Subhash, Rofin, M.Ramachandran, and other leaders spoke. The C.J. Joseph Memorial awards for students were distributed on the occasion.

Indian scientists decode Tulsi plant genome

The Tulsi, a small green plant with blue flowers, it is a pillar of the Traditional Ayurvedic medicine in India.

The plant synthesises a wide range of bioactive compounds, known for their anti-bacterial, anti-fungal, anti-pyretic and anti-cancer properties.

Indian scientists have deciphered the entire genetic make-up of Tulsi, a herb widely used for therapeutic purposes. The genome map will help in making new medicines using the plant.

A multi-institutional team led by Sowdhamini Ramanathan from the National Centre of Biological Science, Bengaluru revisited the age-old knowledge of the plant and its medicinal effects in their laboratories.

The plant synthesises a wide range of bioactive compounds, known for their anti-bacterial, anti-fungal, anti-pyretic and anti-cancer properties.



These compounds are metabolites, compounds that are a by-product of plant metabolism, typically used for plant self-defence. These metabolites are very poorly understood because of lack of genomic information.

Sowdhamini and team have produced the first draft genome of O. tenuiflorum Krishna subtype, which is an important step in understanding and identifying the genes responsible for production of metabolites with medicinal properties.

"The sequence reveals the interesting pathways used by Tulsi to make ursolic acid, a medically important compound. If one could now use modern synthetic biology techniques to synthesise ursolic acid, it would be of great benefit," said S. Ramaswamy, one of the researchers.

"This is the first report of draft genome sequencing of a plant species from NCBS and we hope to do more," added Sowdhamini.

KSBB begins mapping marine ESAs

The pioneering work is an attempt to generate baseline data on marine biodiversity and demarcate ecologically sensitive marine areas.

In a move aimed at keeping a close tab on marine resources and checking their overexploitation, the Kerala State Biodiversity Board (KSSB) has embarked on a novel project to map the marine Ecologically Sensitive Areas (ESAs) off the 600-km coastline of the State.



A Marine Biodiversity Register documenting the underwater ecology of the territorial waters off the coast of Thiruvananthapuram is getting ready for publication by year end. The pioneering work is an attempt to generate baseline data on marine biodiversity and demarcate ecologically sensitive marine areas. The draft of the register is ready and the KSBB is consulting marine experts for scientific validation and verification of the data.

The MBR is a record of the ecologically important reefs and rocky areas and marine resources like rare fishes, sponges, corals, molluscs, jellyfish, crabs, starfish, seabirds, and sea snakes. It is also a repository of traditional knowledge on navigation, natural reefs, bottom configuration of the seabed, ocean currents, wind patterns, and shore line changes.

The KSBB had joined hands with Protsahan, an NGO working among fishermen, to prepare the document. During the pilot phase, two artificial reefs were deposited in the inshore region off the Kannanthura and Valiathura coasts to replenish dwindling fish stocks. "Depletion of marine resources poses a threat to the livelihood of fishermen communities," says KSBB chairman Oommen V. Oommen. "The register is expected to provide indicators to overfishing and marine resource depletion and help formulate

ecosystem-based fishing management policies." Significantly, researchers participating in the project recorded nine new species.

"Unlike the People's Biodiversity Register prepared by panchayat-level biodiversity management committees, the MBR required the expertise of fishermen," says K.P. Laladhas, Member Secretary, KSBB.

Scuba divers were also pressed into service to map the coral reefs and film the flora and fauna. Dr. Laladhas said the project to map the waters off the coast of Kollam and Alappuzha was under way.

Discontent brewing in Nelliampathy tea estates



A tea plantation worker plucking tea leaves at a plantation in Nelliampathy. Resentment is brewing in 53 tea estates in Nelliampathy over meagre wages and exploitation of workers.

Plantation workers at Ambanad began an indefinite strike on Thursday demanding 20 per cent bonus, wage revision and better living conditions.

Discontent is brewing among 3,000 women workers of plantation companies at Nelliampathy in Palakkad district. Most of the employees of the tea estates, set up during the British period and now owned by plantation

companies, are paid only nominal wages, violating all labour laws. Many of them are still daily wagers, despite more than two decades of service.

"We are getting a meagre payment of Rs.229 a day. In the last three years, we got no wage hike and bonus. After the success of the Munnar women's agitation, we are thinking of a similar agitation here," says S. Rugmini, a worker of a plantation at Padagiri.

Nelliampathy has 53 major plantations functioning on land leased from the Forest Department.

Apart from Tamil workers brought in by the then British owners from western Tamil Nadu, the plantations have over 600 tribal employees, mainly those from the Kadar community. The workers complain that the governmental is taking no initiative to keep operational 11 estates taken back from private operators following the end of lease period.

"The private custodians are still taking revenue from these estates using temporary workers from West Bengal and Bihar. They are not allowing us to work," says Ramesh Kuttappan, an employee of Cherunelli Estate, where the operators challenged the government takeover in court.

The living conditions of workers at Karuna Estate remain pitiable though the management reaps huge profit. "We are in a do or die battle where trade unions are very weak. Even at the government-run Oranage and Fruits Farm, the issue of confirming temporary workers remains unresolved," says S. Akhila, a worker from Meenampara Estate.

The women workers have started campaigning among themselves to forge a combine to fight for their rights.

Retail therapy for Ramassery idli

Packed Ramassery idlis at the counter of a supermarket at Chandra Nagar in Palakkad on Thursday demand from outside the village in recent days has led to the rebirth of the idli tepping out of its geographical boundaries, the unique Ramassery idli is travelling to the Malabar region of the State and Coimbatore district of Tamil Nadu.



At least half a dozen families, which inherited the recipe and skill to prepare the special idli variety, are engaged in packing it to be supplied through departmental stores and supermarkets in the region on a daily basis. The Ramassery idli, with its exquisite taste, has a history of over a century.

A packet of six idlis along with a special idli powder is priced at Rs. 35.

Given the huge response to the experiment that was begun three months ago, the families are planning to extend the supply to Thrissur and Kochi.

Increasing popularity

Though the village has only two tiny restaurants where the famous idli is available, others have entered the field because of the huge popularity the idli variety enjoys.

"We thought that the 'king of idlis' would soon be part of lore as the people who prepare it in Ramassery village are fast dwindling. But the demand from outside in recent days has led to the rebirth of the idli," says Bhagyalakshmi Ammal, who is regarded as the most eminent idli maker in the tiny village close to Elappully in the Palakkad-Pollachi route.

The village of Ramassery, where the Mudaliyar community is in majority, has been engaged in idli-making for long. Each family involved in the process is now being able to sell at least 800 idlis a day through the new retailing network.

What makes the Ramassery version of the idli stand out? Ms. Bhagyalakshmi and the others make idlis the same way their forefathers from Tamil Nadu did. The batter is prepared using rice, black gram, fenugreek and salt. Asked about the taste, she says it has to do with the way the idli is prepared.

Unlike other idlis, Ramassery idlis are a trifle flat, and look almost like a mini dosa. "Many famous personalities reach the village to relish the idli," says Kuppandi Muthaliyar, a village elder. The idlis are still prepared in traditional stone vessels using tamarind wood for fire.

demand from outside the village in recent days has led to the rebirth of the idli



Beetroot juice may boost muscle power

The nitrates in beet juice, spinach and other leafy green vegetables such as Arugula and Celery are processed by the body into nitric oxide, which is known to relax blood vessels and have other beneficial effects on metabolism.



The researchers pointed out that participants experienced no major side effects from the beet juice, including no increase in heart rates or drops in blood pressure, which is important in patients with heart failure.

Drinking concentrated beetroot juice increases muscle power in patients with heart failure, new research has found.

"It is a small study, but we see robust changes in muscle power about two hours after patients drink the beet juice," said study Senior Author Linda Peterson, Associate Professor of Medicine at Washington University School of Medicine in St. Louis.

The researchers believe that high nitrate content in beet juice could explain the improved muscle power in the study participants.

Earlier research had found that dietary nitrate improves muscle performance in many elite athletes.

The nitrates in beet juice, spinach and other leafy green vegetables such as Arugula and Celery are processed by the body into nitric oxide, which is known to relax blood vessels and have other beneficial effects on metabolism.

- Drinking beetroot juice daily may help lower blood pressure
- Finding fitness in a glass of juice
- Beetroot juice can ensure more active lives
- Drink beetroot juice daily 'to stave off dementia'
- Drinking beet juice daily promotes brain health in older adults
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Patients in the study served as their own controls, with each receiving the beet juice treatment and an identical beet juice placebo that had only the nitrate content removed.

There was a one-to-two week period between trial sessions to be sure any effects of the first treatment did not carry over to the second.

Two hours after drinking the beet juice with high nitrate content, patients demonstrated a 13 percent increase in power in muscles that extend the knee.

The researchers observed the most substantial benefit when the muscles moved at the highest velocities.

The increase in muscle performance was significant in quick, power-based actions, but researchers saw no improvements in performance during longer tests that measure muscle fatigue.

The researchers also pointed out that participants experienced no major side effects from the beet juice, including no increase in heart rates or drops in blood pressure, which is important in patients with heart failure.

Looking for a healthy breakfast option? Try Sprouts Triangles

A healthy snack, and a nourishing breakfast, check out the recipe of Sprouts Triangles.



A healthy snack, and a nourishing breakfast, check out the recipe of Sprouts Triangles.

Sprouts Triangles

Ingredients:

Black gram dal (split) 25gms

Green gram split 25gms

Bengal gram 25gms

Rice 50gms

Sprouted green gram whole 25gms

Carrot 20gms

Beans20gms

Ginger1 piece

Green chillie paste 1/4tsp

Asafoetida pinch

Rock salt to taste

Cumin seed 1tsp

Coconut paste 1/2medium coconut

Method:

- * Soak Bengal Gram, Freen Gram, Black Gram and rice for 5-6 hrs
- * Grind all dals and rice seperately
- * Add rock salt mix well, let it ferment for 1 hr
- * Grate carrots and finely chop french beans
- * Add vegetables, steamed sprouted green gram, rock salt, asafoetida, ginger and green chillies to fermented batter
- * Steam this batter and cut triangles or diamond shapes

- * Garnish with coriander leaves and grated coconut
- * Serve with tomato chutney

Chef Simran Chawla works with Bite Club a Gurgaon-based chef designed virtual restaurant

THE TIMES OF INDIA

Researchers on Himalayas gather at Almora

Researchers of the Himalayan states of India came together at GB Pant Institute of Himalayan Environment and Development (GBPIHED), Almora, to dwell on aspects of their work and form a network.

The three-day meeting of the Himalayan Young Researchers Forum concluded on Thursday, and had 64 participants from Uttarakhand, Jammu and Kashmir, Himachal Pradesh, Sikkim, Arunachal Pradesh, Tripura, Assam, Nagaland and West Bengal.

Researchers were drawn from the Dr YS Parmar University of Horticulture & Forestry, Solan, University of Jammu and Kashmir, Dibrugarh University, Gauhati University, Tripura University and Kumaon University, among others.

Dr RS Rawal, convener of the meet and scientist at GBPIHED, said, "We were not able to share research knowledge and know what's happening in other Himalayan states. Are they facing similar ecological issues? What solutions have they come up with? With this forum, researchers will know what research work is ongoing at the twelve Himalayan states of India. They

will know if similar research has occurred elsewhere and what problems were studied, what solutions tried."

Among the studies that researchers presented were studies of the water, wildlife, hazards, livelihood, pollinators, agriculture and wildlife.

The gathering dwelt on issues of shrinking wetlands, declining water quality in Tripura and its impact, how bamboo absorbs carbon dioxide better than other plants, medicinal plants that offer sustainable livelihood options, measuring glacier melt, the stark decline in saffron flowers in Kashmir and how man-animal conflict can be decreased in Uttarakhand.

Dr Rawal said, "Since man-animal conflict has been a huge problem that farmers and common people are facing in everyday life, researchers are trying to understand the kind of disturbances in the forest that cause animals to raid civilization. They are also trying to understand the correlation of agricultural and natural vegetation patches."

The young researchers were mentored by eminent scientists like SP Singh, former vice-chancellor, HNB Garhwal University, DC Uprety, emeritus scientist at Indian Agriculture Research Institute, New Delhi and Dr Maheshwari of Earthwatch Institute.

The members of the forum will now coordinate the pan-Himalayan research with the objective of improving quality of work and avoiding duplication. This meeting was possible with funding support from the Swiss Development Corporation.

Seminar on utilisation of neem for farming held in Tripura

The Directorate of Biotechnology of Tripura in collaboration with Pesticide Formulation Technology of the Government of India organised a workshop on 'Neem as a bio-pesticide and bio fertilizer for sustainable development' for sensitization of farmers, faculty, media and research personals.

The one day workshop was organised at the Agartala Press Club. It was inaugurated by the state's science, technology and environment minister Bijita Nath in presence of other dignitaries.

Various speakers at the workshop stressed on neem which is indigenous to India and have been in use for centuries in the Indian agriculture as best natural bio-pesticide and plant fertiliser.

They also highlighted on the need for adopting organic farming by including bio-pesticides and bio-fertilizers which are very much necessary to not only save our future generation from the hazards due to excessive use of chemical fertilizers and pesticides but also to save the soil health to get better yield.

Attempts were made to identify the technologies that farmers were using for pest control with neem based extracts before chemical agriculture came into the picture and bring back the lost confidence in their age-old methods.





Terrace gardens with organic farming

Organic vegetables at just 50 paise a kg: This may sound incredible at a time when veggies are burning a hole in the pocket but a Birbhum firm apparently has the key to it.

The firm, which has set up a terrace garden in New Town, is ready to offer their expertise that could help grow vegetables at an unbelievably low cost. It has come up with an elevated platform on PVC "towers", which could be used to grow vegetables on a terrace for a one-time investment of Rs 4 lakh.

More than 50 varieties of organic vegetables can be produced under the project. A 20 sq-m garden on a terrace could accommodate around 50 different plants, said Kunal Deb, secretary of Owl Spirit, the firm behind the project. "We use only natural ingredients and have created a unique bed, which is 10 times lighter than soil. It is a plant nutrient mixture comprising bacteria, compost and organic plants. We also provide a maintenance kit that consists of fungicide and organic pesticides. A 20 sq-m terrace garden can help meet the vegetable demand of an average-sized multi-storey building for a year. The price will not be more than 50 paise a kg."

Deb and his team has developed a 5,000 sq-ft garden atop Siddha Garden in New Town that grows half-a-dozen varieties of leafy vegetables, such as note shaak, palang shaak, piring shaak, several varieties of chillies, multiple varieties of brinjals, tomatoes, cabbages, cauliflowers, gourds, onions, beetroots, capsicum, garlic, flat beans and bitter gourd. These are cultivated in baskets placed inside low, semi-circular bamboo chambers. The garden produces 8,000 kg vegetables a year.

The new technology that Owl Spirit is offering now is even easier and cheaper than its earlier version. They have devised four-feet tall towers of PVC pipes, each of which can hold at least 10 plants, and can be used to

grow creepers and. A roof can have five-six such towers, meaning 50-60 plants. "It can be used to cultivate several varieties that are now almost extinct in Bengal, such as white brinjals, ridged gourds and piring shaak. For an investment of Rs 4 lakh, eight-10 families can have a yearly supply of vegetables," said Deb. Agriculture minister Purnendu Bose has asked them to help set up more such terrace farms.

The farm could be set up in three months, said Deb, adding they were experimenting with paddy.

BusinessLine

Kharif foodgrain output seen lower at 124.05 million tonnes

A consecutive deficient monsoon is likely to take its toll on Kharif crop production, according to the first advance estimates released by the Agriculture Ministry here on Wednesday.



While almost all the crop segments – foodgrain, coarse cereals, pulses and oilseeds – are likely to miss their targets, output estimates for most major crops appear to be marginally different from the first advance estimates for the Kharif season of the 2014-15 crop year (July-June) that was also hit by a poor monsoon.

Total foodgrain production, including rice, coarse cereals and pulses, is likely to touch 124.05 million tonnes (mt) this Kharif, 1.78 per cent lower than last year's final estimate of 126.31 mt. However, the early estimate this kharif is higher than last year's early estimate of 120.27 mt – a 3.14 per cent increase.

Rice production is pegged at 90.61 mt compared to 88.02 mt last year but lower than the target of 106.1 mt. Total production of coarse cereals such as jowar, bajra and ragi is expected at 27.88 mt, slightly higher than the first estimate of 27.05 mt in 2014-15.

Kharif maize production is expected to be 3.2 per cent lower at 15.51 mt.

Output of kharif pulses such as arhar, moong and urad are seen at 2.61 mt, 0.86 mt and 1.37 mt. While the estimates for urad and moong are expected to be slightly higher than the previous year's early estimates of 1.15 mt and 0.71 mt, it is lower for arhar that was expected at 2.74 mt last year.

Oilseeds buck the trend

Total output for the oilseeds complex is pegged at 198.90 lakh tonnes (lt), about 1.1 per cent higher than the 1st estimate in 2014-15 of 196.64 lt. Soyabean production is expected at 118.32 lt, slightly higher than last year, while output of groundnut – despite 3 per cent lower acreage compared to last year – is estimated at 51.07 lt, higher than the 50.24 lt expected last year.

Cash crops wilt

Cotton production is likely to slide by 3.2 per cent to 335.07 lakh bales (of 170 kg each) in 2015-16, compared to the early estimate of 346.23 lakh bales last year. Cotton acreage is lower by 8.4 per cent this Kharif as of September 11.

Jute and mesta output is also expected to decline by nearly 5 per cent in 2015-16 to 108 lakh bales (of 180 kg each).

Yields impacted

"This is the second consecutive year of a poor monsoon and irrigation coverage needs to be increased. The rural population will always be at risk from droughts in rain-fed areas. So while rice output may remain steady, for others yields will be impacted by less rainfall and moisture in the soil," said DK Joshi, Senior Director and Chief Economist, Crisil.

Around 96 per cent of sowing has been completed even as the country recorded a 16 per cent rainfall deficit between June 1 and September 16.

Severely stressed mainly rain-fed areas include Marathwada, central Maharashtra, eastern Uttar Pradesh and Madhya Pradesh, Bihar and Gujarat. A monsoon resurgence this month in the southern peninsula has brought some relief in regions like north interior and coastal Karnataka and parts of Andhra Pradesh.

Board allays fears of fall in coconut, copra prices

The Coconut Development Board has sought to dispel the fears of a further price fall on coconut oil and copra, saying the demand will pick up from upcountry markets with the starting of festival season.

According to CDB, with the demand for tender coconut, neera, etc on the rise, the arrivals of copra and coconut will be lesser in quantity. Moreover, the steady growth in exports between April and August this year is a clear indication that more coconut is being converted to value-added products apart from copra and coconut oil.

Requesting farmers not to sell their produce at reduced price, the Board called upon coconut producer organisations to be vigilant and respond accordingly to make the market steady.

Meanwhile, the coconut oil market in Kerala and Tamil Nadu remained steady this week with prices quoting at ₹11,400 and ₹10,800 a quintal respectively. Copra prices are also ruling at ₹8,000 and ₹7,800 respectively, registering a ₹200 increase compared to last week.

Agri supermarkets soon in Kerala

The Kochi-based South Indian Fertilisers, an organic fertiliser manufacturing company, plans to set up Kissan Kendras and agri super markets across Kerala. The Kissan Kendra will provide all information on agriculture and make available organic fertilisers, varieties of seeds, organic pesticides, grow bags, etc.

Besides promoting organic farming, the company will extend information on the usage of latest farming technologies at Kissan Kendras, says Sunil Kumar, Managing Director, South Indian Fertilisers.