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THE HINDU

Decline in soil organic carbon content worries ICAR

The Soil Organic Carbon (SOC) content has come down to 0.3 - 0.4 per cent in the country. It is well below the acceptable limit and is a cause for concern, said N.K. Krishna Kumar, Deputy Director General (Horticulture), Indian Council of Agricultural Research, New Delhi.

He was here on a day's visit recently to attend a workshop on banana characterisation.

He said that the SOC should be between 1 to 1.5 per cent. But it had been coming down rapidly because of increasing atmospheric temperature, over exploitation, extensive mining of soil fertility, soil degradation, inappropriate soil tillage, poor crop management, indiscriminate use of fertiliser, and accelerated soil erosion. The ICAR had been working on a project to increase SOC with the agricultural institute across the country.

There was a need to reduce over dependency on pesticides and fertilizers. Bio fertilisation should be promoted instead of synthetic fertilizers.

Mr. Kumar said the rate of post-harvest loss on horticultural products was between 15-20 per cent, which was certainly high. It was mainly because of unscientific method of transportation and ripening, lack of cold storage facilities, and marketing issues.

He said Tamil Nadu had been making a good progress on reduction of post harvest loss than a few States in North India.

The loss was 10 to 12 per cent in Tamil Nadu. As far as mango was concerned, the rate of post-harvest loss in Andhra Pradesh and Tamil Nadu was between 7 per cent and 8 per cent as against 30 to 40 per cent in Bihar. However, Gujarat in North India was doing well in minimising post-harvest loss.

Stating that Theni in Tamil Nadu had become a standout region in the country on promoting tissue culture banana plants and grapes, he said a study indicated that the progressive farmers had brought down the post-harvest loss to a great extent while drastically increasing the production. The model could be propagated throughout the country.

On Tamil Nadu's rainfall pattern, Mr. Kumar said although it was a rainfall-deficit State, it had been getting rain in October, November, and December on account of northeast monsoon when almost entire India did not receive rain during that period.

It was a real strength for the State to boost horticulture production. Hence, the agricultural and horticultural plan of the State could be revisited on that line.

Creating awareness on soil conservation in Salem

Impact of modern agricultural practices explained

An environmental awareness programme on soil conservation marked the World Soil Day celebrations organised by the Department of Environmental Science, Periyar University at Kottagoundapatti panchayat near Omalur recently.

Impact

P. Thangavel, Assistant Professor and organizing secretary of the event delivered lecture pertaining to the significance of soil health and various sustainable agricultural practices.

Further, he highlighted the sources of environmental contaminants to the soil and the impact of modern agricultural practices such as pesticides, fungicides and insecticides usage in the agriculture.

Organic farming

The scenario of organic farming practices and their shortcomings in the agricultural sectors were also discussed.

The faculty members and research scholars of the department interacted with the farmers.

Dr. K. Murugesan, Professor and Head of the Department, offered felicitations.

An awareness brochure was released on the occasion and the farmers' representatives received the same.

Red gram yield likely to come down in Kalaburagi

Changing pattern of rainfall and long dry spell have had a cumulative effect



Against the target of 3.62 lakh hectares (ha), the growers could take up sowing only on 3.15 lakh ha. —File photo

The changing pattern of rainfall and a long dry spell have had a cumulative effect on red gram, the main stay of farmers in the Kalaburagi region. For the first time in recent years, the area under cultivation has come down and the yield too is likely to decline this year by more than 35 per cent.

Joint Director of Agriculture Mohammad Jilani Mokashi told *The Hindu* that although the pest attack on red gram was minimum this year and the advanced molecules available now in the market had helped farmers control the pest menace, the reduction in yield was a major cause for concern for farmers.

He said that due to the delayed start of the monsoon for the first time after a long gap, Kalaburagi district could not achieve the target fixed for sowing of red gram this year. Against the target of 3.62 lakh hectares (ha), the growers could take up sowing only on 3.15 lakh ha.

Due to the extended dry spell, the growth of the plant was stunted and the branching out was also minimum, reducing the carrying capacity of pods and thereby reducing the yield. In a few taluks such as Jewargi, the situation was very bad with the yield expected to go down below 50 per cent due to the failure of the rains.

Mr. Mokashi, however, said that the condition of the rabi crops, particularly Bengal gram, which had been taken up on more than 1.84 lakh ha, was good and if there was one more spell of rain, the yield would be bumper this year.

He said like in the kharif season, the failure of the monsoon had led to the overall reduction in the sowing of rabi crops. As per the latest figures available, the sowing has been completed only on 90 per cent of the targeted area. Against the targeted area of more than 5.14 lakh ha, the sowing has been completed on just over 4.62 lakh ha. While cereal crops has been sown on 2,49,783 lakh ha as against the targeted 2,79,490 ha, pulses have been sown on 1,83,349 ha as against the target of 1,98,700 ha and oilseeds have been sown on 28,698 ha as against the target of 36,537 ha.

Prevent letting out livestock in morning hours, rearers in Erode advised

The Animal Disease Intelligence Unit has analysed the morning dew in grass to be the cause of oral sores in sheep in Chennimalai area. In the wake of occurrence of stomatitis in livestock, officials of the Animal Husbandry Department have urged farmers to let goats and sheeps to graze only after the dew dries up. It will be ideal to let out the animals after 10.00 a.m., Regional Joint Director of Animal Husbandry Department Jayaraman said. Stomatitis is common during winter season. There was no cause for fear, and the mouth sores could be cured with a mixture of boric acid powder and glycerine. Till the sores are cured, the animals must be fed with soft food such as porridge, Dr. Jayaraman said.

‘Appoint chairman to Loss of Ecology Authority’



Effluents from industrial units chokes the Noyyal near Aathupalam in Coimbatore. Farmers affected by the pollution of the Noyyal and waiting for compensation for more than 18 years can heave a sigh of relief.

The Madras High Court has directed the Central government to nominate chairman for the Loss of Ecology (prevention and payments of compensation) Authority for Tamil Nadu within a month. The authority shall hold day-to-day sittings to clear all claims. Over 28,000 farmers have been affected by the pollution caused by bleaching and dyeing units at and around Tiruppur.

The Bench of Chief Justice Sanjay Kishan Kaul and Justice R. Mahadevan passed the order on a petition by an affected farmer. During the argument, counsel for the petitioner said the appropriate forum for deciding the compensation claims was the Loss of Ecology Authority. However, it was dysfunctional without a chairman.

The Bench said the authority had to be made functional to help out those who had been waiting for the compensation for long.

The authority should hold day-to-day sittings to clear claims of compensation by farmers affected by Noyyal pollution

Symposium on plantation crops

The event will be a forum to discuss developments in production, utilisation, value addition in plantation crops.

The Indian Institute of Spices Research (IISR), Kozhikode is hosting a three-day international symposium on plantation crops at the Gateway Hotel in the city from Wednesday. Renowned agricultural scientist Prof. M.S. Swaminathan will inaugurate the event.

The symposium will take stock of recent developments and issues in plantation crops sector, said the organisers in a release here.

The symposium will deliberate on the issues related to the plantation crops sector which includes crops like coconut, tea, coffee, rubber, cocoa, cardamom and cashew. P. Rajendran, Vice Chancellor, Kerala Agricultural University, will deliver the presidential address during the inaugural session.

Dignitaries attending the symposium include Rajani Ranjan Rashmi, Additional Secretary, Ministry of Commerce, Government of India; N. K. Krishna Kumar, Deputy Director General, Horticultural Science, ICAR; and M. Anandaraj, Director, Indian Institute of Spices Research. More than 350 delegates from India and abroad, representing different stakeholders like research institutions, development agencies, agro-industry, farmers, extension professionals, trade associations and policy makers actively working in the plantation crops sector will participate in the symposium.

The event according to the organisers will provide a forum to discuss recent developments in the production technology, utilization, value addition and marketing of products from plantation crops. It will also discuss the emerging challenges and concerns with respect to the plantation crops sector like climate change, mechanization, changes in domestic and international market environment.

The principal theme of the symposium shall be ‘Converging technologies for Sustainability.’

Apart from lectures from eminent scientists and administrators, separate

technical sessions on plant health management, knowledge management, production systems, and value chain management will also be held during the three days.

A special Farmer-Entrepreneur-Researcher interface session has also been arranged as a part of the symposium to streamline the developmental agenda in plantation crops.

A three-day agricultural exhibition showcasing the latest technologies, innovations and products in agriculture and allied sectors is also being organised at Edamaram square on P.T Usha Road during the period as part of the symposium.

Space constraints dog KAU sales centre

The centre has been functioning from a small rented facility

Severe space constraints is hindering the efforts of the information-cum-sales centre of the Kerala Agricultural University (KAU) to popularise its services to take to vegetable cultivation and to sell its products.

The centre has been functioning in a small rented facility at Vellimadukunnu here for over two decades now. This is while all the other 13 districts in the State have at least a few own facilities including research stations and farms that cater to the demands of farmers in their respective districts.

60 in Thrissur

While Thrissur has as many as 60 institutions functioning under it, the capital district of Thiruvananthapuram has a dozen such institutes including an agriculture college and research centres. Kozhikode has been neglected, alleges councillor P. Kishanchand, who brought the issue to the notice of the Corporation Council on Tuesday.

According to him, two years ago a meeting attended by the Agriculture Minister K.P. Mohanan and the Vice Chancellor of the University had decided to hand over five acres from the 26 acres of land under the Agriculture Department at Vengeri in Kozhikode for the centre. “But the

decision was not acted upon for unknown reasons,” said Mr. Kishanchand. A research centre and nursery can be set up there. It can also house the regional auditing office in the same facility, he said.

At present, seeds, saplings and other necessary materials including organic manure and pest control products are brought to the centre from the KAU farms and research centres in the neighbouring districts including, Wayanad, Malappuram and Kannur. “We never get materials including saplings and seeds to meet even half of our requirements,” says a staff member from the centre.

The cramped tiny room, in which the centre functions, doesn’t have enough space even for the three staff members to sit.

The limited number of planting materials and other supplementing products get sold out as soon as they are brought.

“We get hundreds of calls on a daily basis asking for planting materials,” the staff say.

Poor rainfall spells doom for farmers

The prevailing drought conditions and depletion of water table in the major irrigation projects of SRSP and Lower Manair Dam

have spelt doom for the farmers this rabi season as there was a steady decline in the area of cultivation. Against the normal area of cultivation of 2,38,546 hectares in rabi season, the cultivation was taken up in only 40,899 hectares this season in the district.

Around this time last year, the farmers had cultivated in 2,98,564 hectares during the season following good rainfall and heavy inflows into major reservoirs.

This season, the farmers are a worried lot over the cultivation due to non-availability of adequate water sources from the major irrigation projects. The water level at SRSP is only 21 tmcs against its full capacity of 90 tmcs and LMD is only 8 tmcs against full capacity of 24 tmcs.

The existing water level at the two major irrigation projects would be sufficient only to meet the drinking water requirement in the coming summer season and irrigation authorities have ruled out release of water for the farm activities.

Preference to ID crops

In the meantime, the farmers in both the SRSP command area and non-command area, who have groundwater table, were preferring only Irrigated Dry (ID) crops instead of traditional paddy cultivation. It may be recalled that the Karimnagar district topped in paddy production in the State during the rabi. Unfortunately, due to drought conditions, the paddy cultivation had declined considerably in the district.

The agricultural authorities have intensified their awareness programmes educating the farming community to take up only ID crops and also vegetables for better returns due to shortage of water and power during the season.

The authorities said that the farm production during this season would decline considerably in the district due to the prevailing drought conditions. However, the maize cultivation is increasing steadily.

Israel keen to work with A.P. in agriculture, water management

Israeli Ambassador, Daniel Carmon on Tuesday said his country was keen to work with Andhra Pradesh in sectors like agriculture and water management.

A delegation led by the Ambassador called on Chief Minister N. Chandrababu Naidu at the Secretariat. During the meeting, Mr Carmon while expressing interest in sectors like agriculture and water management, said “given that Israel is a water-scarce region, we have excelled in using water efficiently and have pioneered water management systems”.

Observing that Israeli technology would contribute to rapid growth of Andhra Pradesh, Mr. Carmon added that they could also help the State in waste management, recycling and desalination of water.

Mr. Naidu said Andhra Pradesh could use Israeli expertise and technology and urged the Ambassador to work with the government in skill upgrading. “Identify areas that you are interested to work with A.P. government and we will facilitate the process and begin working with you,” he added.

Mr Carmon also extended an invitation to the Chief Minister to visit Israel and study their efficient water management systems.

Meanwhile, India’s High Commissioner to Nigeria A.R. Ghanashyam met Mr. Naidu.

Mr Ghanashyam outlined the areas in which Andhra Pradesh and Nigeria could work together. He said Nigeria believes that there good scope to work with A.P. in natural gas. As part of this, Nigeria could invest in downstream facilities of A.P., he added.

Meanwhile, the Chief Minister explained the opportunities and advantages of the State and wanted the Commissioner to zero-in on the sectors they would like to work with the A.P. government.

Rice and shine

Rice is a grass that produces several grains consumed by humans. It is believed that humans started consuming and cultivating rice for more than 3,500 years in Asia before which it gradually spread across the world. Today rice is a common food for almost all humans on the planet except for those living in colder regions such as the Antarctica where it is generally covered with snow all through the year.

Unlike trees which are planted just once, rice needs to be resown every year.

It requires a lot of water and is also called as water guzzler among plants.

It is usually grown in fields which are partially submerged in water.

Seasons to sow

The plant has two seasons for sowing. These are the Rabi and Kharif.

The Kharif crop is planted in early summer and depends on the summer monsoons for irrigation and Rabi during November – December.

Official records say that there were more than 40,000 different rice varieties in India till 50 -60 years ago. Sadly much of these varieties have either been lost over time or have vanished since farmers are not so willing to grow them. And growing of many old and traditional rice varieties have vanished from our system and some rare varieties have been lost. The rice that you eat today is not what your grandparents ate. If you ask them about this they would have stories to tell you as to how the rice they consumed as a kid was far more delicious and kept them healthy. Those days when pizzas or fast foods were alien to our culture, it was simple rice porridge or overnight cooked rice soaked in water gruel which your grandparents must have had for their morning breakfast.

There are certain varieties of rice that grow only in certain regions.

For example, *Basmati* rice used for making *biryani* and *pulav* grows well only in Himalayan regions like Uttarakhand. *Sona Masuri* is native to Karnataka, while varieties such as *Bapatla* and *Ponni* to Andhra Pradesh.

Before it reached your plate

The rice grains are processed before being packed and sold. The rice, originally is not white in colour. It is light brown in colour and is considered to be healthier than the white ones you eat.

Once the rice is harvested, it is milled in rice mills to remove the outer soft coating and polished. This is called milling.

Milling makes rice fluffier and gives it white to light yellow colour. It is then sent to markets and department stores from where you buy it.

Eating white polished rice must have become a habit some 50 years back

according to well known rice researchers and historians because in olden times the poor village folks seldom had the money or technology to mill the harvested brown rice into white and had to consume only the brown rice. Today there are some organisations and individuals across the country who have been doing sterling work in preserving many of the rice varieties thought to have been lost.

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In countries like the U.S. there is a rule that milled rice must be treated with several vitamins and iron to make it healthier and instructions on the packet suggest that rinsing it is not necessary as it would remove the nutrients.

According to doctors and nutrition experts milled rice is inferior in vitamins and minerals and they recommend whole grain brown rice instead.

Giant African Snail will make a comeback: experts



The Giant African Snail, an invasive species that has established itself in large parts of the State, could re-emerge from its dormant state and pose a greater menace before the next wet spell, a consultative workshop held here on Tuesday warned.

The molluscs that have gone into aestivation (period of hibernation to escape summer heat and dryness) could come out in a big way during the summer showers and go on to expand their area of distribution, according to T.V. Sajeev, Entomologist and Head, Forest Health division, Kerala Forest Research Institute (KFRI), Peechi.

Threat to crops

Experts participating in the workshop cautioned against the use of chemicals to control the snail that has ravaged crops and posed a threat to native ecosystems in parts of the State. The workshop was organised by the Kerala State Council for Science, Technology and Environment (KSCSTE) and the Centre for Innovation in Science and Social Action.

Highlighting the potential ecological damage caused by chemicals, speakers called for organic methods to check the biological invasion. In his presentation, Mr. Sajeev suggested nicotine-based pesticides to keep a check on snail populations. He said studies had proved the efficacy of tobacco decoction to quell the marauding pest.

The KFRI, he said, had initiated efforts to develop a plant extract with molluscicidal activity. “It is important to ensure that the control agent used against a pest does not become a problem in itself,” he said.

Avoid chemicals

Calling for steps to avoid chemical control methods, C.K. Peethambaran, Director (Agriculture), CISSA, said tobacco decoction and copper sulphate were good alternatives in the fight against the dreaded pest.

The workshop stressed the need for a watchdog system to maintain constant vigil against biological invasions. It recommended a coordinated effort by the departments of Agriculture, Health, Tourism and Forests to assess the potential dangers posed by the giant African snail. It also called for steps to equip local bodies to prevent the rapid spread of the species.

Addressing the speakers, Agriculture Minister K.P. Mohanan stressed the need for more research to quell the menace. P. Mara Pandian, Principal Secretary, Science and Technology, inaugurated the workshop. C.S. Yelakki, Director, Department of Environment and Climate Change; R.V. Varma, former chairman, Kerala State Biodiversity Board; spoke.

Move on tobacco cultivation hailed

The Anti-Tobacco Forum (ATF), Mysuru, has welcomed the steps being taken by the Department of Agriculture for gradual reduction in tobacco cultivation and shifting to alternate crops in line with the Centre's policy of prohibiting cultivation in the country in a phased manner.

Its proposed drive to facilitate farmers through necessary inputs/subsidies/loans and so on, for easy transition to alternate crops, is a step in the right direction to reduce avoidable deaths of people who are becoming victims of diseases directly attributable to consumption of tobacco products, said ATF convener Vasanthkumar Mysoremath.

“Farmers have understood that there is no future for tobacco. Proposals to help farmers will go a long way in creating confidence in their minds about their earning capacities even after stopping tobacco cultivation and taking up farming of agriculture and horticulture products,” he said. Mr. Mysoremath said the forum had approached Tobacco Growers' Associations, Gram Panchayat Health and Environment Committee members, and local NGOs with a request to educate farmers to stop cultivation of tobacco.

‘Renewable’ energy from cuppa

Central American coffee farmers are turning agricultural wastewater into biogas

Central American coffee farmers have found a new source of energy in their beans: turning agricultural wastewater into biogas.

An often-overlooked byproduct of the world's favourite stimulant, the water used to process raw coffee beans is usually dumped back into the environment untreated.

In Central America, locals call it "honey water" because of its sweet taste and yellowish colour.

High in methane gas

Extremely polluting, it is high in methane gas -- a leading contributor to global warming produced, in this case, by the fermentation of the coffee tree's berries.

Across Nicaragua, the 1.3 million sacks of coffee produced annually generate pollution equivalent to about 20,000 cars.

Now a pilot project at 19 farms in Nicaragua, Guatemala and Honduras is treating that water, separating out the methane and using it to fuel electric generators.

"Look how high that flame is," said Sarahi Pastran as she cooked bananas in her kitchen at the La Hermandad coffee cooperative in San Ramon de Matagalpa in Nicaragua.

Her stove was connected to a pipe that ran across her lush yard and connected to a biogas generator fuelled by coffee byproducts that used to pollute local rivers.

The project was launched in 2010 by Dutch sustainable farming group UTZ Certified, seeking to use less water in coffee growing and use it more creatively.

Pollution impact

"It used to cause a lot of pollution... and it smelled," said Francisco Blandon of the wastewater that his family farm used to produce.

"A lot of families live by the river. They bathe there, wash their laundry. It gave them rashes and intestinal parasites when they drank it," said Blandon, 39, as two of his four children ran around barefoot on the dirt floor of their house about an hour north of San Ramon.

The project has achieved all the goals: producing biogas, reducing pollution and using less water.

Water use at the La Hermandad farm has fallen by more than 80 percent. .

UTZ has started rolling out the project in Colombia, Peru and Brazil. It is looking for funds to do the same in Kenya and Vietnam.AFP

Australia pledges \$165 million to UN climate fund

Australia has made a surprise pledge of 200 million Australian dollars (\$165 million) to a key U.N. climate fund.

Expectations of an Australian contribution to the Green Climate Fund were low after Foreign Minister Julie Bishop told The Associated Press last week that Australia would continue to help developing countries cope with climate change through its own aid program.

But in Lima on Tuesday, Bishop announced that Australia would provide money to the fund as part of its “commitment to play our part in the global response to climate change.” The fund has now received pledges of more than \$10 billion.

Ms. Bishop said Australia is already making major contributions to address the effects of climate change, including through national direct action and international engagement, including its aid program.

India a moderate performer: report

India has been named a moderate-performing country in combating climate change with Australia being the worst, according to a report released at climate negotiations here.

India was ranked 31. “India climbs five places and continues to profit from the very low level of per capita emissions, but overall CO2 emissions have

risen constantly over the past five years to about 40 per cent,” said the Climate Change Performance Index 2015 report by Germanwatch and Climate Action Network (CAN) Europe.

Australia was the worst performing industrial country in terms of climate change in 2014. The report by two NGOs said the poor ranking was due in part to policy changes made by the current coalition government.

The Climate Change Performance Index ranks emissions and climate policies of the 58 highest CO2 emitters worldwide.

It ranked Denmark as the best performing nation, followed by Sweden and the U.K. Saudi Arabia ranked last on the index. — PTI

First ‘green diesel’-powered flight

A Boeing aircraft has completed the world’s first flight using ‘green diesel’, a sustainable biofuel made from vegetable oils, waste cooking oil and animal fats.

The company powered its ecoDemonstrator 787 flight test airplane on December 2 with a blend of 15 per cent green diesel and 85 per cent petroleum jet fuel in the left engine.

“Green diesel offers a tremendous opportunity to make sustainable aviation biofuel more available and more affordable for our customers,” said Julie Felgar, managing director of Environmental Strategy and Integration, Boeing Commercial Airplanes.

“We will provide data from several ecoDemonstrator flights to support efforts to approve this fuel for commercial aviation and help meet our industry’s environmental goals,” Ms. Felgar said in a statement.

Sustainable green diesel is widely available and used in ground transportation. Boeing previously found that this fuel is chemically similar to HEFA (hydro-processed esters and fatty acids) aviation biofuel approved in 2011.

Widely available Green diesel is chemically distinct and a different fuel product than “biodiesel,” which also is used in ground transportation.

With production capacity of 800 million gallons (three billion litres) in the U.S., Europe and Asia, green diesel could rapidly supply as much as one per cent of global jet fuel demand.

“The airplane performed as designed with the green diesel blend, just as it does with conventional jet fuel,” said Captain Mike Carriker, Chief Pilot for New Airplane Product Development, Boeing Test and Evaluation.

On a lifecycle basis, sustainably produced green diesel reduces carbon emissions by 50 to 90 per cent compared to fossil fuel, according to Finland-based Neste Oil, which supplied green diesel for the ecoDemonstrator 787.

The flight test was coordinated with the U.S. Federal Aviation Administration, Rolls-Royce and Pratt & Whitney, and EPIC Aviation blended the fuel

Climate summit: Responsibility of developed nations stressed

Both India and the United States stuck to their respective stand on the differentiation of countries according to the Kyoto Protocol which had clear divisions for the developed countries as annexe one and developing countries as non annexe one. Union Minister of State for Environment Prakash Javadekar on Monday said that this differentiation should remain as it is. India is not in favour of rewriting the Protocol to change the categorisation of countries, he pointed out in a clear indication that historical responsibilities of the developed countries would continue to be a determining factor in funding adaptation and technology transfer. .

The BASIC or Brazil, South Africa, India, and China group of countries will meet this week and he said the countries are all on the same page on several issues. They also agreed that the intended nationally determined contributions (INDCs) should have a strong adaptation focus. "What carbon space have you released for us to grow?" Mr. Javadekar asked, adding that adaptation needs to be an essential part of the INDCs of developed countries. BASIC also wants developed countries to make more meaningful financial contributions.

Mr. Javadekar said India was opposed to an ex ante review process and he said countries needed the internal freedom to determine their domestic climate action needs. He said that new climate legislation in India would include a review of laws on forest, wildlife, environment, water, and air and proposed amendments to make the laws and rules transparent. He also emphasized the fact that India would not accept a review of its climate targets in a bilateral meeting with

the head of the delegation of the United States, Todd Stern. An official statement said they discussed issues related to Intended Nationally Determined Contributions (INDC)s, pre 2020 ambitions and elements of the 2015 agreements including mitigation, adaptation, technology transfer framework and capacity building. Mr. Javadekar said that the target of 20,000 MW Solar Energy production had been increased to 100 GW during next 5 years which would save a huge amount of coal.

He said the principle of Common but Differentiated Responsibility (CBDR) should be at heart of the Paris Agreement. He also reiterated the need for technology upgradation through joint collaborative research and expressed concern at the availability of limited Carbon Space for the growth imperatives of developing countries. The US delegation indicated that 1992 Annexes of the convention need to be redefined. Both the delegations agreed to continue to work jointly to make the outcome of Lima COP positive and acceptable, the statement said.

Take vitamin C if exercise makes you cough: Study



Vitamin C can help in controlling cough. (Source: Thinkstock Images)

If you show symptoms of respiratory disorders such as cough or sore throat after a session of vigorous exercise, increasing your vitamin C intake could offer relief, says a study.

A meta-analysis of three studies found that vitamin C significantly reduced post-exercise airway (the tubes that carry air into and out of the lungs) obstruction in participants who suffered from exercise-induced bronchoconstriction, the constriction of the airways in the lungs due to the tightening of surrounding smooth muscle.

“It seems reasonable for physically active people to test whether vitamin C is beneficial on an individual basis, if they have documented exercise-induced bronchoconstriction or suffer from respiratory symptoms such as cough or sore throat after taking vigorous exercise,” said Harri Hemila from the University of Helsinki in Finland.

The researchers found that an intake of vitamin C led to a reduction in post-exercise large-airway obstruction and small-airway obstruction.

Hemila carried out an analysis of a study which had 12 participants. The participants had asthma, were on average 26 years, and suffered from exercise-induced bronchoconstriction.

Five other studies examined subjects who were under short-term, heavy physical stress and a meta-analysis revealed that vitamin C halved the incidence of respiratory disorder symptoms.

Another trial reported that vitamin C halved the duration of the respiratory disorder symptoms in male adolescent competitive swimmers.

The study appeared in the journal Allergy, Asthma & Clinical Immunology.



Health benefits of mushrooms



Health benefits of mushrooms

A mushroom is the fleshy, spore-bearing fruiting body of a fungus, typically produced above ground on soil or on its food source.

Button Mushrooms are popular in India and are easily available at any gourmet store's vegetable aisle. Listed below are the benefits of mushrooms that we never knew.

Mushrooms are a good source of B vitamins which also play an important role in the nervous system.

Mushrooms are also a source of important minerals. Potassium is an important mineral found in mushrooms. It aids in the maintenance of normal fluid and mineral balance, which helps control blood pressure.

They help to strengthen the immune system as well. Mushrooms provide ergothioneine (which is a naturally occurring amino acid) a naturally occurring antioxidant that may help protect the body's cells.

Mushrooms are the only source of vitamin D in the produce aisle and one of the few non-fortified food sources often grouped with vegetables, mushrooms provide many of the nutritional attributes of produce, as well as attributes more commonly found in meat, beans or grains.

Mushrooms are low in calories, fat-free, cholesterol-free and very low in sodium, yet they provide several nutrients that are typically found in animal foods or grains.

Staples for a Mediterranean diet



Staples for a Mediterranean diet (Thinkstock Photos/ Getty Images)

Here are some staples and ingredients that you must have in your pantry and fridge in order to cook a Mediterranean meal:

Chickpeas: These are used in almost every Mediterranean dish that is cooked. Chickpeas are also very healthy as they are full of fiber which control diabetes and help in preventing heart diseases.

Eggplant: Another important staple in a Mediterranean diet is an eggplant, as the diet did not traditionally use a lot of meat.

Olive oil: The most important part of a Mediterranean diet is olive oil. It is rich in monosaturated fat and helps in fighting heart diseases.

Peppers: Bell peppers form an important part of a Mediterranean diet. Fresh, dried and powdered, roasted or stir-fried, these can be eaten in any way and are rich in vitamins.

Tomatoes: These form an inevitable part of a Mediterranean diet. They are healthy and are also known to prevent certain cancers.

7 Foods that make you stink



7 Foods that cause body odour (Thinkstock photos/Getty Images)

Blamed on everything from genes, to cheap perfume, even occupation, or the type of food you ate, body odour can be crowned as the single biggest turning off factor in social interactions.

Some experts might blame it on the excessive use of deodorants and some might blame it on the biological composition of your body, but many unanimously agree that some specific types of food items can lead to body odour. Zoom in on our list of top 7 foods that cause body odour and consume them in moderation if you are a regular victim of this disorder.

Spicy food

A spice overload can lead to excessive sulfur in your food intake, which will be eliminated through skin's pores and breath. Ensure that you eat well-balanced meals that aren't too heavy on garlic, onions or piping hot curries.

Red meat

Red meat requires maximum digestion effort for your body to process. Over-eating will lead to issues like perspiration and unwanted sweat. While vegetarians might not have such issues with their limited food intake, fenugreek and other strong flavoured plants cause similar results.

Alcohol

Chocolate, soda, tea, coffee, alcohol - consuming any of these in excess causes body odour as when you drink them at least 10% of it will be left unprocessed causing perspiration. Excessive alcohol, in particular, may cause body odour.

Junk foods

Excessive consumption of junk foods with next to no exercise routine, will lead to accumulation of fatty cells inside your body which is the chief reason behind sweating and BO. They lead to unwanted breath and body odour as the food takes longer than their healthier counterparts to get digested. Foods high in hydrogenated oil, sugar, flour, salt and so on are not good when consumed in excess.

Low carbs

A diet which does not contain carbs can lead to a greater release of sweat in the body and also excess of protein foods. This process leads to a release of chemical called ketones in your bloodstream which lead to unwanted smell.

Dairy products

Again, dairy products are rich in protein and high consumption of these food items will take longer for your stomach to digest them. Excess consumption of dairy products can lead to release of hydrogen sulfide and methyl mercaptan in the body which can easily trigger off a foul smell.

Tobacco

We all know it. When the smoke of cigarettes mingles with other sweat glands in the body it'll lead to a release of a distinctive smell which leads to a specific 'smoker' smell that lingers on everything from clothing to hair.

Recipe: Masala baked eggs

A yummy egg and spinach baked dish.

Preparation time: 15 mins

Cooking time: 5-6 mins

Serves:01

Recipe Ingredients:

1 tbsp butter

4 tbsp cooked chopped spinach, that's been squeezed to extract excess liquid

2 eggs

½ tomato

2 tbsp heavy cream

2 tbsp grated parmesan

½ tsp oregano

¼ tsp grated nutmeg

Salt and freshly ground black pepper to taste

Recipe Method:

Heat oven to broil. Grease two 8-oz. gratin dishes with butter. To each dish, add 2 tbsp. spinach. Using your fingers, make 2 wells in each pile of spinach and crack 2 eggs in each well. Cut tomato into 4 wedges and nestle 2 wedges on opposite sides of each dish.

Pour 1 tbsp. heavy cream into each dish. Sprinkle each dish with 1 tbsp. parmesan, ¼ tsp. oregano, 1/8 tsp. nutmeg, and salt and pepper to taste. Transfer to oven rack and broil until the cheese is golden brown, the whites of the eggs are set, and the yolks are still slightly soft, about 5 minutes.

Recipe: Masala omelette

Masala omelette is an all time favourite. The easiest dish to make on the go, you can fluff it up and add a variety of toppings like mushrooms, capsicum, cheese and boiled potatoes.

Ingredients:

4 eggs

4 onions, finely chopped

2 green chilies, finely chopped

2 tbsp milk
4 tbsp capsicum, finely chopped
4 tbsp tomatoes, finely chopped
Salt to taste
1/4 tsp fresh black pepper powder
1/4 tsp turmeric powder
A few coriander leaves, finely chopped
2 tbsp olive oil (or butter)

Method:

-Beat the eggs till frothy (the more you beat the egg the fluffier it will come out to be). Add the rest of the ingredients except the oil and whisk well.

-Drizzle oil in a pan, allow it to heat up. Once hot, reduce flame, add half of the egg mixture and swirl it around the pan. Cook on low to medium flame till the sides are cooked and the underside is slightly browned.

-Slowly flip over and cook the other side.

-Slide the omelette onto a plate and serve with bread or buns.

Recipe: Pan fried mushroom

Mushroom lovers will surely lap it up.

Apart from being a mouth-watering delicacy, it is a visual delight too which will be ready in less than half an hour!

Ingredients: Fresh button mushrooms, half cup each of porcini/oyster mushrooms (it is optional), one small piece each of red and yellow capsicum, one tablespoon olive oil, two medium onions cut into small pieces, three cloves of crushed garlic, one tablespoon soy sauce, one tablespoon red chilli

sauce, half tablespoon vinegar, half teaspoon dry thyme, salt to taste, about eight black peppercorns, few fresh basil leaves.

Preparation: If using porcini and oyster mushrooms, soak in lukewarm water for 20 minutes. Drain. Wash well and set aside. Heat the oil in a large pan. Add the onions and saute over medium heat till translucent. Add the garlic and stir-fry for a minute. Add the mushrooms and red and yellow capsicums and saute on high heat for three minutes. Add the soy sauce, red chilli sauce and vinegar and saute for another two minutes. Add the thyme, salt and crushed peppercorns. Remove from heat, stir in basil and serve hot.

Healthy soups for winter

With winter whetting your appetite, food usually becomes the centre of attention.

When the ambient temperature drops, the body generates heat by increasing its basal metabolic rate in order to keep up the body temperature. There are two ways in which this metabolic feat is achieved - by increasing the breakdown of the body's stored fat, and by providing the body more fuel to burn in the form of food. Thus, in cold weather, the feeding centre is stimulated, increasing the food intake.

Another important reason for a noted increase in hunger is a marked drop in water intake during colder days. When the temperature is low, you don't really feel the need to drink more often, as you don't feel thirsty again and again. As the fluid intake reduces, you tend to confuse thirst with hunger, which leads to increased consumption of food and thus, a bigger appetite. So, focus on keeping the fluid intake constant throughout the year, not just in summer. Less hydration has many disadvantages. It is the underlying reason for cold sores, dry and flaky skin, itching, cracked lips and lacklustre hair.

If gulping down glasses of water doesn't appeal to you, try increasing the intake of other fluids like milk, juices and caffeine-free tea, like jasmine,

chamomile and other natural flower extracts. Do remember that caffeinated beverages are never counted as liquid in take; instead, they sap your system of water. Soups are a healthy and delicious way to stay hydrated and warm during winter. Soups need not be loaded with cream and grease; opt for recipes that contain chicken or vegetable broth and a variety of vegetables, beans, and lean meat - the kind of ingredients that make you feel light and healthy.

Soups are a great way to incorporate nutritionally-rich foods in your diet. Plus, they work as a wonderful option for picky eaters. You can cook your soup longer or shorter to vary the crunchiness of the vegetables. You can also puree the ingredients to add a creaminess.

CHICKEN TOFU LEMON CORIANDER SOUP

Ingredients: Olive oil: 1 tsp, Garlic cloves: 2, Green chilli (small, crushed): 1, Oil: ½ tsp, Vegetable or chicken stock: 500 ml, Coriander leaves (finely chopped): 2 tbsp, Cornflour: 2 tsp, Fish sauce: ½ tsp, Boneless chicken or tofu (small pieces): 50 gm, Carrots and beans (finely chopped): 50 gm, Egg: 1, Salt and lemon juice to taste

Method: Take one tsp olive oil and saute garlic and green chillies in it for 1 min. Add tofu chicken pieces and saute further for 2 mins. Add stock and boil for 10 mins. Add salt. Turn off the gas and add coriander leaves. Just before serving, bring to a boil and add fish sauce. To thicken the soup, take two tsp cornflour in a bowl and dilute it in little water. Add this diluted cornflour to the soup and stir it well. Add the beaten egg as well. Add lemon juice as per taste. (Vegetarians need to do away with fish sauce and egg; the soup tastes delicious without them too). It is a healthy, nourishing soup that tickles the tastebuds with chillies and garlic and hydrates the body.

POTATO AND MUSHROOM SOUP

Ingredients: Boiled potatoes (medium, grated): 2, Mushrooms (sliced): 50 gm , Garlic cloves (crushed): 1 to 2, Vegetable stock: 2 cups, Celery (finely chopped): 1 tsp, Dash of butter, Salt and pepper to taste

Method: Saute garlic in a dash of butter. Add grated potatoes, 1 cup water and boil it till it becomes smooth. Add the vegetable stock and sliced mushrooms. Boil for 5 to 7 mins. Add salt to taste and coarsely ground pepper. Garnish with finely chopped celery. This thick, smooth soup is very filling and warms you on cold winter nights.

THE HINDU **BusinessLine**

Coconut oil continues to slip despite 'unusual' buys

Kochi, December 9:

Coconut oil prices continued to decline this week in Kerala and Tamil Nadu, with prices quoting Rs. 12,700 and Rs. 12,800 a quintal, respectively.

Copra prices dropped to Rs. 8,500 in Kerala and Rs. 8,000 in Tamil Nadu.

Thalath Mahmood, Director, Cochin Oil Merchants Association, said that buying has emerged after continuous fall in the last two weeks.

However, this will not sustain and prices are expected to drop further in the coming days.

Bharat Khona, former Board Member, COMA, was of the view that the market is witnessing speculation and a sudden spurt in prices is due to an unusual corporate buying, which is unlikely to sustain.

The loose oil market in Tamil Nadu has shot up to Rs. 1,950 for 15 kg from the last week level of Rs. 1,650. Given the continuous fall in coconut oil and copra prices, the Coconut Development Board has said that the price drop is temporary. At a time when enquiries are increasing for products such as

virgin coconut oil, desiccated coconut and *Neera* sugar, it is expected that the price of coconut and its value-added products will not fall further.

According to Board officials, there has been no decrease in the domestic consumption.

There is a 20 per cent increase in the export of coconut products in the first quarter of 2014-15.

‘Support rubber growers by way of direct subsidises’

No other country has penalised consumers by hiking duties or imposing restrictions

Kochi, December 9:

Ever since prices of natural rubber started falling, rubber producers have been demanding curbs on import.

The Government, too, went ahead and increased the import duty by Rs. 10 per kg.

Demand from growers for further hike in import duties continues.

As the Government gears up for a National Rubber Policy, Mohinder Gupta, President, All India Rubber Industries Association (AIRIA), speaks to *BusinessLine* on the vexed issue of rubber imports. Edited excerpts:

How do you view the demand to curb rubber imports?

Any decision on rubber imports should be an outcome of a well thought-out policy rather than a knee-jerk reaction.

The gap between rubber production and consumption in India is widening.

Imports are inevitable to sustain rubber products’ manufacturing in the country.

Yet, import duties on rubber in India are one of the highest in the world. The industry is, in fact, suffering from inverted duty.

Despite domestic deficit, rubber is subjected to 20 per cent duty while finished rubber goods can be imported at less than half of that duty.

Any further curbs on import of rubber will make Indian manufacturing highly uncompetitive.

The National Rubber Policy is in the offing and we are hopeful it will take a holistic view of the rubber sector.

Don't you think the industry needs to take into account the plight of rubber growers as well?

Against the popular perception, we are all for a vibrant plantation sector and would welcome any move by the Government to support the planters.

However, it should not be at the cost of the manufacturing sector.

In the global market, we are in competition with China and other rubber products manufacturing countries.

While they are able to access raw material cheaply, we are being subjected to barriers such as high import duties.

That makes it an uneven playing field for us and Indian industry's competitiveness is being affected.

On the allegation that rubber prices have fallen due to imports?

The fall in prices is linked to softening of commodities globally. However, Indian rubber prices have continued to rule higher than international prices.

In each of the first seven months of current fiscal, the average price of domestic rubber (RSS 4) was higher than comparable prices in Kuala Lumpur and Bangkok.

Growers believe that with softening of rubber prices, industry is making profits at their cost?

The industry has witnessed a harrowing phase following spiralling rise in rubber prices in the not-so-distant past. As SMEs operate on a thin margin, a

sudden and unprecedented rise in rubber prices hurt the industry gravely.

Now that rubber prices have come down from their peak levels, there is no room for complacency.

The threat of cheaper import of finished rubber products is growing. India's trade deficit in rubber products (non-tyre) with some of the key trading partners has gone up substantially.

As a matter of fact, many of the rubber producing countries are going up the value chain by producing and exporting rubber products instead of raw material.

Will the Government's plan to hike import duty on block rubber from 20 per cent to 25 per cent help lift the rubber price?

Any increase in customs duty on block rubber will be a retrograde step having far-reaching adverse and irreversible consequences for rubber consumers.

The Kerala government is already charging five per cent Purchase Tax on rubber and block rubber.

If the Union and Kerala State governments wish to support growers, it should be done directly by way of a subsidy to them as has been done by other major rubber producing countries such as Thailand, Malaysia, Indonesia, Sri Lanka.

No other country has penalised or affected their respective rubber consuming interests by hiking duties or imposing any other restrictions.

What is your view on Indian block rubber industry?

The block rubber industry has got the capacity to fulfil the demand for block rubber in India.

However, severe shortage of good quality raw material is preventing the industry from making the required quantity.

During the current year more than 28 factories are lying closed for want of raw material and factories which are continuing to produce are able to utilise

not more than 40 per cent of their capacity.

Block rubber is preferred over sheet rubber by producers and consumers.

However, the Centre has disallowed the block rubber industry from importing its raw material.

The Indian Block Rubber industry which was developed by the Rubber Board is coming to a slow but sure end.

Tata Power launches website to promote animal husbandry in Kutch

Ahmedabad, December 9:

Ahmedabad, December 9 Tata Power, which set up India's first Ultra Mega Power Plant (UMPP) of 4,000 MW at Mundra in Kutch district, on Tuesday launched a new website, www.kutchkalp.org, to promote animal husbandry as a key source of alternative income for the people of Gujarat.

Alternative income

Through its wholly-owned subsidiary Coastal Gujarat Power Ltd (CGPL), which runs the UMPP, Tata Power has endeavoured towards sustainable development of communities living in and around its areas of operation, said Anil Sardana, Managing Director and CEO. Since animal husbandry remains a key source of alternative income for Indian communities at large, the company is supporting the practice by ensuring regular fodder supply for the cattle.

Under its ongoing project "Kalp", Tata Power provides replicable models for establishing fodder supply centres and building Gaushalas (animal shelters) in the region to help strengthen this livelihood option, he said.

The company encouraged the local community to develop a website to create awareness about the various activities conducted under its project Kalp, and to help raise funds for the initiatives through a charitable trust, which in turn has developed the website.

The trust looks after 1,500 cattle, and, during drought mitigation, supplies fodder to more than 6,000 cattle from eight villages. Successful commissioning of the program has resulted in a substantial rise in livestock, and increase in the income of the cattle owners. The initiative has also encouraged more people to engage in the business of animal husbandry.

Tata Power is India's largest integrated power company with an installed gross generation capacity of 8,615 MW and a presence in all the segments of the power sector. It is also a leading renewable energy player in India.

Under its project "Kalp" Tata Power provides replicable models for establishing fodder supply centres and building Gaushalas