

Using simple methods to preserve biodiversity

It cannot get simpler than this. A mud pot covered with cow dung serves as a means to preserve traditional seed varieties. Families and communities such as ‘Sunamani Paraja’ from Koraput district, Odisha use these kinds of simple methods to become “custodian farmers” or conservation champions in their community.

“Custodian farmers” are ordinary farming community members, who have knowledge and access to diverse seeds and resources and help conserve biodiversity in their region. Sixteen farmers from across India — Kolli Hills, Jawadhu Hills, Nainital and Koraput — presented simple means by which knowledge transmitted across generations had been preserved.

Millets for health

Mr. Natesan from Kolli Hills said: “Millets are traditionally used in our social rituals from the times of our grandfathers. This helped reinforce the habit of eating millets, keeping us healthy and also motivating us to grow these crops.”

The farmers were speaking at a two-day update on “Experiences of Rural Poor Communities and their On-farm conservation Efforts,” held at MSSRF in Chennai.

The project, coordinated by Bioversity International, Italy, and funded by International Fund for Agriculture Development (IFAD), looks at placing more emphasis on neglected and under-utilised species through on-farm conservation efforts.

The event was attended by NGOs, farmers, students and researchers working on the subject.

Experts called for the need for labelling products as “conserved” on-farm to provide recognition for the efforts of traditional agriculture communities and for a national body to certify the ecological significance of these products. There was a suggestion to move towards “biofortification” or the enhancement of nutritive value of a particular crop through natural occurrence, purposeful selection or genetic modification dependent on appropriate approvals. This would help increase the nutritional status and move towards ‘Zero Hunger.’

Encourage them

Prof M.S. Swaminathan in his address said: “Protect, encourage and reward these custodians. Women especially have a major role to play in preserving biodiversity.” He suggested the inclusion of millets in the mid-day meal programme as it made sense from the point of view of nutrition as well as climate resilience for food production.

Dr. Stefano Padulosi, Global Co-ordinator from Bioversity International, , emphasised the need for strong policy advocacy at the national level to promote these crops.

Three biogas plants inaugurated at Thandalam



Three biogas plants, installed with the help of the Thandalam Yogashema Trust (TYT) and technical assistance of the Tamil Nadu Agricultural University (TNAU), were inaugurated in Thandalam, about 8 km from Arakkonam, on Wednesday.

The labour component of the installation of the plants was provided free of cost to beneficiaries K.S. Gopal, M. Balakrishnan and V. Rajagopal thanks to the construction of the plants by masons who underwent a 10-day training offered by TNAU in the village recently, according to S. Kamaraj, Head of the Department of Bio-Energy, TNAU, Coimbatore.

Mr. Gopal said he established a two-cubic meter biogas plant with the help of the trainee masons in December. He has three cows with which he was able to feed 25 kg of cow dung to the plant daily.

Mr. Balakrishnan has established a 4-cubic meter plant. With 20 cows, he is able to get 75 kg of cow dung to be fed to the plant daily.

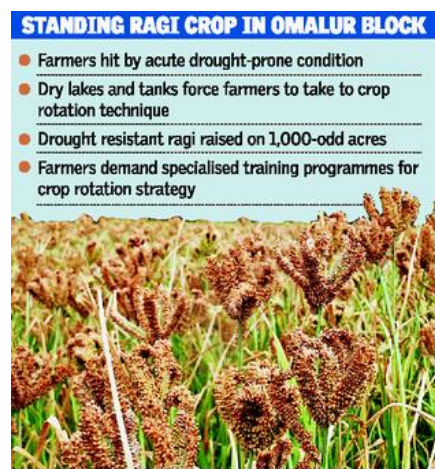
Mr. Rajagopal has installed a 6-cubic meter plant. He too has 20 cows. “I get a steady supply of biogas from the plant,” he said.

Dr. Kamaraj said with these plants the beneficiaries would be able to save the cost of buying LPG for cooking. The 12 cubic meters of biogas, which they would be producing daily, was equivalent to 150 cylinders of LPG per annum. The manure in the form of slurry, which is a by-product of biogas, was equivalent to 30 bags of urea. They could also save on chemical fertilizers. They planned to take up vegetable cultivation by using the slurry as manure.

Radha Parthasarathy, Managing Trustee of TYT, said the establishment of the biogas plants was part of the rural development activities undertaken by the TYT with TNAU's help as part of an MoU signed between the two institutions last year for imparting modern technology to farmers in the village.

The Trust hoped to expand its activities soon to the neighbouring Itchiputhur village whose president P. Gunapooshanam Palraj had evinced interest in the construction of hygienic individual toilets to eliminate open defecation.

Omalur farmers expect higher ragi yield



Farmers of Omalur block anticipate a higher yield in ragi this season following good cultivation practices and maximum utilisation of available irrigation facilities.

Omalur block, considered as a very backward area in the district, is further affected by the failure of monsoon, leading to severe drought-prone conditions for the past few years.

Farmers have been forced to withdraw paddy. Even farmers cultivating three crops a year, have to be complacent with single crop this season.

Poor irrigation facility makes the farmers to desist from sugarcane and horticultural crops too.

All the water sources such as lakes and tanks had virtually dried up particularly in the last few years, causing much anxiety to farmers as well as revenue and agriculture department officials.

However, farm wells have come to the rescue as the lone source for irrigation.

With the water table in these wells not adequate for raising paddy, farmers had opted for crops particularly ragi and cholam.

Ragi had been raised on 1,000-odd acres in villages of Thindamangalam, Muthunayakkanpatti, Sellapillaikuttai, Pagalpatti, Kanjanayakkanpatti and Poosaripatti in Omalur and Kaadaiyampatti panchayat unions. Ragi is a drought resistant crop and could be raised without much agricultural labour. Wetting the fields once a week is enough for its survival.

Now, the entire standing ragi crop is in a total productive stage, thus bringing a lot of cheer to the farmers of both the unions.

Harvest period

As the harvest period is nearing, they expect a bumper yield.

“After a long gap, we could see the farmers rejoicing over their harvest, though with a different crop this time,” says a progressive farmer of Kanjanayakkanpatti village.

Since the alternative crop such as minor millets, varagu, ragi, cumbu etc could prove beneficial to the farming community during drought-prone conditions, the State agriculture and horticulture departments should take initiative to impart specialised training to the farmers on the latest farm technologies, he opined.

CM to inaugurate agriculture event

Chief Minister Siddaramaiah will inaugurate a three-day agricultural summit at the Exhibition Complex in Autonagar here at 11 a.m. on Saturday.

He will arrive here from Mysuru and return to Bengaluru the same day at 1.30 p.m.

The summit is being organised by Karnataka Small Scale Industries Association in association with MM Activ Sci-Tech Communications

NABARD plumps for solar PV pump systems

The National Bank for Agriculture and Rural Development (NABARD), an implementing agency of the Ministry of New and Renewable Energy's (MNRE) solar photovoltaic water pumping systems scheme, is involving all stakeholders to encourage farmers to choose solar systems for irrigation needs.

The NABARD has invited the MNRE-empanelled manufacturers of the solar photovoltaic water pump systems, all the banks and the New & Renewable Energy Development Corporation of A.P. for its one-day workshop on implementation of the scheme in Krishna district. The workshop will be conducted in Vijayawada on Thursday.

“Solar pump systems are economically viable for all kinds of farmers. The subsidy offered by the NABARD is a minimum of Rs. 50,000 and a maximum of up to Rs. 1.94 lakh for each system based on its capacity,” NABARD Assistant General Manager N. Madhumurthy said.

The solar photo voltaic water pump systems manufacturers — Tata Solar, BPL Solar, Cyber and Motion companies — will present their technology before the bankers in order to convince them to extend their credit support to the farmers. NABARD is acting as an implementing agency of the scheme.

Infectious diseases

Climate change has triggered the spread of infectious diseases in new places and new hosts such as West Nile virus and Ebola, an alarming study shows.

Researchers from University of Nebraska-Lincoln in the U.S. warn that humans can expect more such illnesses to emerge in the future as climate change shifts habitats and brings wildlife, crops, livestock, and humans into contact with pathogens to which they are susceptible but to which they have never been exposed before.

“It is not that there is going to be one ‘Andromeda Strain’ that will wipe everybody out on the planet. There are going to be a lot of localised outbreaks putting pressure on medical and veterinary health systems,” said noted zoologist Daniel Brooks.

Brooks and co-author Eric Hoberg, zoologist with the U.S. National Parasite Collection of the USDA's Agricultural Research Service, have observed how climate change has affected very different ecosystems.

Parasite paradox

They have witnessed the arrival of species that had not previously lived in that area and the departure of others.

“Over the last 30 years, the places we have been working have been heavily impacted by climate change,” Brooks said.

“Even though I was in the tropics and he (Hoberg) was in the Arctic, we could see something was happening. Changes in habitat mean animals are exposed to new parasites and pathogens,” he noted.

Brooks calls it the “parasite paradox.”

Over time, hosts and pathogens become more tightly adapted to one another.

According to previous theories, this should make emerging diseases rare because they have to wait for the right random mutation to occur. However, such jumps happen more quickly than anticipated. The new hosts are more susceptible to infection and get sicker from it, Brooks said, because they have not yet developed resistance. IANS

Haryana to make it easy for industrialists Industrial ease Windows' would be set up at all 29 Industrial Estates in Haryana for the timely redressal of grievances, Chief Minister Manohar Lal Khattar announced on Wednesday.

Presiding over an interactive session with the industrialists of Panchkula, Ambala and Yamunanagar here regarding the upcoming new Industrial Policy-2015 of the State, Mr. Khattar also announced that the process of Change of Land Use (CLU) would be made transparent.

He said that setting up of 'Industrial ease Windows' would not only ensure redressal of grievances in a time-bound manner but also save the time and resources of industries. Under this system, a complaint number would also be generated so that the complainants are able to track the status. The government would also appoint industry-wise relationship managers for facilitating the process.

While underlining the need of a New Industrial Policy, he said it would aim at ensuring inclusive industrial development in the State. Mr. Khattar assured that his government would rise above politics and ensure the equal development of the State.

The Chief Minister said industry, agriculture and employment remained his top priority. Efforts would be made to make the youth employable by way of skill development. For this, new projects for skill development would be established. He also assured that suggestions of industrialists which are feasible would be incorporated in the new Industrial Policy.

The Haryana Government, he said, was also laying special emphasis on Information and Technology (IT) to ensure speedy delivery of services. He also exhorted the industrialists to make all their transactions online so as to ensure transparency.

Principal Secretary Industries Devender Singh said the draft of new industrial policy would be presented by March 31, 2015. He said that meetings have been organised with 20 industrial estates to take their suggestions and summary of recommended actions has been prepared.

Now, farmers can get information on crop management through SMS

Farmers in Dakshina Kannada can now get information on horticultural crop management through SMS.

The Department of Horticulture launched the service about 10 days ago, according to Yogesh H.R., Deputy Director.

Farmers would have to register their names and cellphone numbers with the department by calling 0824-2412628 or sending SMS to 9480354968, he told *The Hindu* .

They would get information on seasonal crops on a daily basis — one SMS a day on a particular crop. For example, now it is the season of growing mangoes and cashew. If tea mosquito bug hits cashew or mango hopper attacks mango orchards, a 10-line SMS, mostly in Kannada and sometimes in English, would be sent to the farmers on the disease or pest control measures for cashew on one day and for mango the next day. Pepper, cocoa and arecanut too were covered under the service, Mr. Yogesh said.

During monsoon, farmers would be informed about steps to control ‘kole roga’ (fruit rot disease) and black pod disease (pot rotting).

Information would be provided on containing areca palm bugs too. He said this service would be used for providing information on drip irrigation and about any new horticultural schemes or any programmes of the government.

“With changing technology and times, it is the fastest way of communicating with farmers. The farmers’ portal of the Union government will be used for providing the service. The rights of using the service and uploading content reserves with the Deputy Director,” Mr. Yogesh said.

He said that farmers could also use the numbers to seek information about the management of any particular disease or report about spread or diseases in their plantation.

‘Neeru-Chettu’ can make A.P. drought-proof in 5 years: CM

Chief Minister N.Chandrababu Naidu will be launching ‘Neeru-Chettu’ programme from Thambalapalle village in Chittoor district on Thursday to kick-start measures for water conservation, improve ground water table to make the State drought-proof within five years. The whole administrative and political machinery transform the flagship programme into a people’s movement and take up repairs and maintenance of canals, reservoirs, lift irrigation schemes, check dams and de-silting of tanks in a campaign mode across the State in the next five months. This will increase their capacity to store rain and surface water, Mr.Naidu said.

On the eve of ‘ Neeru-Chettu’ launch, Mr.Naidu held a review meeting with the Ministers and officials of Rural Development, Forest, Water Resource, Ground Water, MA &UD and later a video conference with all the District Collectors on Wednesday.

Emphasising on a focused approach, he said there would be no dearth of funds repair and de-silting. But priority, however, be given to works which cost less but have greater impact. The works would be taken up by involving Janmabhoomi committees from village, mandal, district level and also the water users associations.

Mr. Naidu said though THE State had 36 per cent deficit rainfall, because of constant monitoring by officers under ‘Polam Pilusthondi’ programme,

agriculture sector registered a growth of 11.32 per cent. The next target by effective water conservation and utilisation would be to achieve 20 to 25 per cent agriculture growth rate. Of 395 lakh acres in the State, about 200 lakh acres were cultivable but only 50 per cent of it was irrigated area. The target is to bring the balance 100 lakh acres also under irrigation, he said.

Of 1,557 tmc of dependable yield, only 1,299 tmc was utilised now and of 3,525 tmc flood water going to sea hardly any thing was being utilised, he said.

Controlling rhizome rot in ginger

Rhizome rot, also called soft rot, is one of the most devastating diseases of ginger. Initial symptoms of the disease appear as light yellowing of leaf tips which gradually spread down to the leaf blade and leaf sheath along the margin.

During early stages, the middle portion of the lamina remains green while the margin turns yellow. Subsequently the yellowing spreads to all leaves followed by drooping, withering and drying. Infected shoot can be easily pulled out from the soil.

Management practices

Use of healthy rhizome is one of the most important preventive measures.

Cultivars such as Maran, Nadiya and Narasapattom are reported to be resistant to this infestation.

Water-logging in the field must be avoided. A raised bed of 30 cm height and 1m width is recommended. Provide proper drainage and keep land free from weeds at all times.

Collect the diseased material as and when the disease is noticed and burn them. Plan early planting during April. Crop rotation with non- host crops like leguminous crops, maize, ragi, paddy will not only benefit the soil nutrient supplementation but also keep the diseases under check.

Seed rhizome dip treatment with *Trichoderma harzianum* 10 gm per litre of cow dung slurry, before sowing is effective. One per cent of bordeaux mixture spray just after extraction is also effective.

Drenching the seeds with bordeaux mixture in 25 litres of water dissolved in six kg of copper sulphate solution and again after germination at 2-3 weeks interval gives partial control.

Seed treatment

Rhizomes treated with (Trichoderma bio-control agent) at rate of 5gm / kg of rhizome for 30 minutes proves effective. Application of Trichoderma bio-control agent (2.5 kg mixed with 50 kg FYM) 10-15 days before sowing and oil cakes making are recommended.

Soil drenching with Mancozeb (0.3 per cent) or Metalaxyl at 500 ppm is recommended in epidemic disease areas.

(Dr. Anup Das, Senior Scientist (Agronomy), Division of Natural Resource Management, ICAR Research Complex for NEH region, Umiam - 793 103, Meghalaya, mobile: 09436336070 and Dr. Utpal Dey, ICAR Mob: 8119934883, email: utpaldey86@gmail.com)

Kudumbasree to set up poly houses



The Kudumbasree Mission and the district administration will set up poly houses in all panchayats with a view to producing pesticide-free vegetables.

District Collector S. Harikishore launched the project by harvesting the crop at a model poly house set up on two cents of land on the Collectorate premises here on Wednesday.

Kudumbasree Mission district coordinator S. Sabir Hussein said the project envisages setting up of five poly houses each in all 58 panchayats as a preliminary step. He said the project had been planned in such a way that each poly house would produce all vegetables required for five families through out the year. According to him, the cost of setting up the poly house on one cent of land would be Rs.70,000 and the Kudumbasree

Mission would provide 33 per cent subsidy on it.

Efforts are under way to facilitate assistance from the local self-government institutions, Agriculture Department, etc, for the project so that more farmers can be attracted to the scheme, he said.

Mr. Hussein said the Kozhikode Agrico and the Pragathi Farm Centre in Palakkad were providing the technical assistance to the project.



Bittu questions Tota Singh's absence

As the nominated Member of Parliament in the governing council of Indian Council of Agricultural Research (ICAR), Ludhiana MP Ravneet Singh Bittu attended the first meeting of ICAR in New Delhi on Wednesday.

In the meeting, Bittu highlighted the poor financial state of Punjab Agricultural University (PAU) and demanded that the Center of Excellence for crop maize be started at the earliest in Ludhiana. It is to be noted that the proposal to start a center of excellence for maize to boost research and crop diversification has already been passed but the state government is yet to handover the land for the purpose.

Bittu also questioned that why Punjab agriculture minister Tota Singh was absent from this national-level ICAR annual meet where all state agriculture ministers highlighted the problems of their states in front of union agriculture minister Radha Mohan Singh. Talking to The Indian Express, Bittu said, "Various states including Rajasthan and Himachal Pradesh blamed Punjab for polluting waters and soil due to overuse of pesticides and chemicals in fields. Except myself, there was none to represent Punjab at the meeting and I would like to question that why agriculture minister Tota Singh was missing from such an important annual meeting. It is true that at Punjab was once the food bowl of India but all states blamed us for polluting waters and soil at ICAR meeting." He said that PAU V-C Dr B S Dhillon who also attended the meeting held discussions on various issues of agriculture in Punjab. "I requested Dr O P Yadav, who is director of maize research to get work of center of excellence started in Ludhiana at the earliest but they told that Punjab government has yet not handed over the land for the purpose. It is best known to Punjab government that why 200 acres of PAU land earmarked

for the center has not been allotted to the ICAR,” he said.

The matters related to crop diversification including research works on Bt Cotton, maize and depleting groundwater in Punjab were also highlighted at ICAR meeting.

“PAU V-C told us that although the budget of PAU has increased from Rs 185 crore to Rs 300 crore in past years, still there is shortage of funds and scientists. I raised the issue in front of union agriculture minister during the meeting,” said Bittu.

Small Wonder

When it comes to gourmet delights, small is suddenly big. And no one knows it better than Achintya Anand.

A former chef, Anand studied at Le Cordon Bleu in Australia, and trained at the Michelin-starred Aquavit restaurant in New York. He is now a successful farmer, of sorts, who specialises in growing microgreens, which he supplies to leading restaurants in the city such as Indian Accent, Farzi Cafe and Le Bistro Du Parc.

Microgreens are essentially the shoots of salad vegetables such as rocket, celery, basil and beetroot, which are picked just after the first leaves have developed and can vary between one to three inches in height.

Anand started growing microgreens at his father’s farm in Chattarpur merely as a hobby, about five months ago. “I was intrigued with their delicate textures and distinctive flavours, which can go from sweet to pungent. Initially, I gave some seeds as an experiment to my gardener,” says Anand. His first batch left him pleasantly surprised. He then armed himself with technical know-how, though he admits there was not much out there to fall back on, and so he began to experiment.

“The water has to be chlorine free, the amount of sunlight and when to expose them, and testing soil quality are important aspects. I have made notes on how plants respond,” he says.

Once he had perfected the art of growing microgreens, Anand approached leading chefs and they were more than eager to use them. Today, his herb garden, under his company Krishi Cress, offers mini versions of radish, basil, mustard, coriander, beetroot and onion. Also in the mix are edible flowers such as nasturtiums and apple blossom. “I continue to experiment in the herb garden. It’s a specialised job,” he says.

Nita Metha’s Kitchen: How to make Fruit & Vegetable Pasta Salad



It's healthy, it's light and it's delicious. This recipe is dedicated to all the pasta lovers, who have tried infinite renditions of their favourite food.

Serves 6

Ingredients ½ cup bow pasta (farfalle), 1 tsp olive oil ¼ cup black grapes, ¼ cup green grapes 2-3 slices fresh or tinned pineapple – cut into small cubes ½ red apple – cut into small cubes with the peel 1 small cucumber – cut into thin slices without peeling 5-6 mint leaves ½ capsicum – cut into small cubes 1 cup thinly shredded lettuce

Dressing 1 cup (250 gms) curd – hang for 15 minutes in a muslin cloth and squeeze lightly 1 tbsp olive oil 1 tbsp powdered sugar ½ tsp salt, ½ tsp pepper ¾ tsp mustard powder or to taste 2 tbsp cream, preferably thick (amul) 1 tbsp orange marmalade (optional) garnish 2 tbsp walnuts – toasted

Method * Boil pasta in 3 cups of water to which 1 tsp salt has been added. Cook till soft yet firm. Drain and refresh under cold water. Mix 1 tsp olive oil and keep aside. * Place all the ingredients of the salad, except pasta and tomatoes in a bowl of chilled water for ½ hour to make them crisp. * Mix all the ingredients of the dressing till smooth. Refrigerate till serving time. * Drain the fruit and vegetables from the chilled water and pat dry on the kitchen towel well. There should be no moisture in the salad as the salad dressing will become thin and not coat the fruits and vegetables nicely. Put the vegetables and pasta in a big mixing bowl. Wrap with a cling film. Refrigerate till serving time. * To serve, pour the dressing over the salad and toss to mix well. Garnish with toasted walnuts.



THE TIMES OF INDIA

Foodgrain production to decline by 3% in 2014-15 in India

NEW DELHI: India's food-grain production will report a decline of 3% 2014-15. The agriculture ministry on Wednesday brought out an estimate for the year, putting the total food-grain production at 257.07 million tons in current crop year (July-June period) as compared to the highest ever food-grain production of 265.57 million tons in 2013-14.

"This decline has occurred on account of lower production of rice, coarse cereals and pulses due to erratic rainfall conditions during monsoon season in 2014", said the ministry in its estimate report.

The country had reported the Monsoon (rainfall) deficit of 12% last year. India, the world's second-largest wheat producer, is, however, estimated to harvest a near-record crop this year. The wheat production is expected to decline only marginally -- from 95.85 million tons (MT) in 2013-14 to 95.76 million tons (MT) in 2014-15.

Total production of rice in the country is estimated at 103.04 MT which is lower by 3.61 MT than the last year's record production of 106.65 million tons. On the other hand, total production of Coarse Cereals is estimated at 39.83 MT which is lower by 3.46 million tons than their production during 2013-14.

"Production of pulses is estimated at 18.43 million tons which is lower by 1.35 MT than the last year's production but higher by 0.81 MT than their average production during the last five years. With decrease of 2.92 million tons over the last year's production level, total production of oilseeds in the country is estimated at 29.83 million tons", said the second estimate of the agriculture ministry for the year 2014-15.

Health benefits of curry leaves



Kadi patta or curry leaves is a staple in Indian dishes.

Commonly used as seasoning, this leaf adds a special flavour to every dish. But there is more to the humble curry leaf than simply flavour. Packed with carbohydrates, fiber, calcium, phosphorous, irons and vitamins like vitamin C, vitamin A, vitamin B, vitamin E, curry leaves help your heart function better, fights infections and can enliven your hair and skin with vitality. Here are few health benefits of kadi patta.

Helps keep anaemia at bay

Curry leaves are a rich source of iron and folic acid. Folic acid is mainly responsible for carrying and helping the body absorb iron, and since kadi patta is a rich source of both the compounds it is your one-stop natural remedy to beat anaemia.

Fights diabetes

Not only does kadi patta help lower the blood sugar levels, but also keeps in check for a few days after the administration of curry leaves. Curry leaves help your blood sugar levels by affecting the insulin activity of the body and reduces ones blood sugar levels. Also the type and amount of fiber contained within the leaves play a significant role in lowering blood sugar levels. So, if you suffer from diabetes, kadi patta is the best natural method to keeping your blood sugar levels in check.

Improves digestion

Curry leaves is known to help improve digestion and alter the way your body absorbs fat, thereby helping you lose weight. Since weight gain is one of the leading

causes of diabetes, kadi patta treats the problem right at the root.

Lowers cholesterol

Many research shows that curry leaves have properties that can help in lowering one's blood cholesterol levels. Packed with antioxidants, curry leaves prevent the oxidation of cholesterol that forms LDL cholesterol (bad cholesterol). This in turn helps in increasing the amount of good cholesterol (HDL) and protects your body from conditions like heart disease and atherosclerosis.

Prevents greying of hair

Kadi patta has always been known to help in preventing greying of the hair. It is also very effective in treating damaged hair, adding bounce to limp hair, strengthening the shaft of thin hair, hair fall and treats dandruff. The best part about this benefit is that you can either choose to eat the curry leaves to help with your hair woes or apply it to your scalp as a remedy.

Dhanuka Agritech launches herbicide to benefit sugarcane crops

Dhanuka Agritech Limited, one of India's leading agrochemical formulation company of India has launched its much awaited herbicide-'SEMPRA' in Lucknow. SEMPRA is a product of Nissan Chemical Industries Ltd., Japan and has been launched for the first time in India by Dhanuka Agritech. The product is ecofriendly and is said to benefit sugarcane growing areas including Uttar Pradesh, Punjab, Haryana, Maharashtra, Karnataka and Tamil Naidu.

The product has been evaluated and recommended by universities including UP Council of Sugarcane Research, Narendra Deva University of Agriculture and Technology, Faizabad (UP) and Vasantdada Sugar Institute (Maharashtra) etc.

Commenting on the launch of the new product, RG Agarwal, Group

Chairman, Dhanuka Agritech Limited said, "In agriculture sector, sugarcane share is about 7% of total volume of agricultural output. The national consumption for sugar which is the primary product of sugarcane is around 248 lakh MT while the current production is 250 lakh MT." It is estimated that by 2030, the national consumption will be around 330 lakh MT. "For almost two decades no herbicide has been introduced for sugarcane. Looking at the growing demand of sugarcane in India, Dhanuka Agritech has developed a world class and revolutionary product-SEMPRA", he added.

MK. Dhanuka, Managing Director, Dhanuka Agritech Limited, said, "At Dhanuka Agritech Limited, we believe in developing innovative products for our customers. Our aim has always been to work for the farmer's prosperity and SEMBRA is a step in this direction. Our new product has been developed specially for control of *Cyperus rotundus* which is world's most difficult weed. With this launch, we are hopeful to become a favorite of sugarcane farmers & of sugar industry."

In India, more than 33% of agricultural production damage is caused by weeds. This in turn damages food production worth almost Rs 30,000 crore. In line with its aim of protecting the farmers and crops, Dhanuka Agritech has launched Sempra, a selective and systematic herbicide which comes with strong action and gets absorbed quickly for the control of *Cyperus rotundus*, increasing the yield of the crop to approximately 7-12 %.

The product will soon be available across India through a wide network of authorized dealers and distributors. The company has ambitious plans to market the new product through its training and educational activities. In this process, Dhanuka has already conducted 1200 field demos and shown the results to more than 25000 delighted farmers.

The company manufactures a wide range of farm input products to support the farmers. It has a pan-India presence through its marketing offices in all major states of India, with a network of more than 8,000 distributors and dealers selling to over 75,000 retailers across India reaching out to more than 10 million farmers. The company has technical tie-ups with 4 American and 4 Japanese companies.

Dhanuka Agritech is among the top five companies in India, in brand sales. With more than 200 registrations and 500 active SKUs, the company has one of the largest market penetrations. Dhanuka Agritech currently has 30 offices across India and 45 warehouses.

[Farmers trying to preserve local crop varieties](#)

The promoters of organic cultivation, mostly farmers, across Vidarbha are also trying hard to conserve the traditional varieties of crops. They are in their own way contributing towards conservation of these indigenous and straight varieties for future generations in a well-planned and systematic manner.

Many of these attending the three-day seed festival here feel they were doing the government's job. "It is basically the job of the government to preserve the indigenous varieties, be they in crops or fauna of the country. As farmers, we feel it as our duty not to let these varieties die with time. Already, we have lost a number of them," said Vasant Futane from village Rawala in Warud Tehsil in Amravati district.

In fact, Futane is working towards multiplication of these seeds among farmers so they are not lost and the farmers continue to grow them. He doesn't want the hybrid or the genetically modified varieties to take over the indigenous varieties, be they food crops, commercial crops like cotton, or even fruits. "I want that the government should take the issue up at policy level and conserve all the local varieties," he said.

Tanmay Joshi, a young graduate turned farmer from near Pune, has now joined a group of organic farmers at Gopuri near Wardha and is growing local varieties of rice and other crops. He feels it was a misconception among general public that the educated persons from cities were guiding the farmers towards conservation of local varieties. He said it was the other way round. "Farmers are much more knowledgeable and informed about the local varieties than the universities and the government institutions. They understand their value more than anyone else. Hence, it is not difficult to convince them, if needed," said Joshi. He wants the government to give incentives to these farmers. He wants that the government should name varieties in the name of farmers who had preserved it.

Satish Gogulwar of Amhi Amchya Arogyasathi said the farmers even knew the right and scientific method of conservation of traditional seeds or varieties. A recent research had shown that the farmers were 80% correct in following the scientific technology for germ-plasm conservation. He said he believed that organic farming was the only method of sustainable agriculture as it maintained the soil quality and gave enough earnings to farmers to continue farming. On the other hand, those who grew commercial crops like cotton and soyabean ended up committing suicides, he pointed out.

Tejal Vishweshwar from Mumbai, who is also a promoter of organic farming and the seed/variety conservation movement, said he believed that the change always should begin at home. Hence she supports farmers who are putting in sincere efforts in conserving the dwindling local varieties.

THE HINDU Business Line

Why e-logistics matters in agri-biz

With the rapid globalisation of trade since 1990s, the Indian agri-business industry has evolved itself. It has also been exposed to competition from within as well as outside the country. This has resulted in changed understanding, implementation and practices through adoption of technologies related to logistics followed in developed countries. In agriculture, logistics plays central role in profitability of a company as procurement has to be done from several small pockets and again final distribution goes to households spread over a vast geographical area.

Though development of logistics in the country has been given emphasis over the last few decades, it has to be better customised to ultimately benefit all the partners in agri supply chain, especially the farming community.

Logistics is often misunderstood as transport and storage functions alone.

In fact, there is wide range of activities in logistics that include rendering of services, flow of information, addition of value to products, marketing, order processing, aggregation of stock and many more in an integrated way, ultimately resulting in competitive advantage to a firm.

The increasing importance of logistics in agriculture can be attributed mainly to the fact that every new generation of consumers demands regular supply of perishable products with conditions such as right kind of product, at right place at right quality and quantity at the least possible cost.

Understanding the process

Elogistics, when defined simply, can be understood as the process of automating/ bringing on electronic platform of logistics processes, aiming

at enabling the participants in the supply chain to manage their resources in an efficient way.

Most businesses, however, seem to take a rather limited view of e-logistics, which in their context has come to stand for IT-enabled transportation and distribution services with certain warehousing functions as a part of supply chain management.

Essentially, internet mediated operating systems that provide certain value addition to the basic function of end to end movement of goods seem to be the function that e-logistics has come to embrace in the business world. Collaborative Freight Management Systems, Cargo Transportation Matching Systems, Freight Exchanges, Vehicle Tracking and Location Data Capture, on board computers and all such applications increase visibility and permit integration of process across the supply chain through the use of IT.

These fall within the purview of e-logistics. However, in agribusiness, the concept of e-logistics has to relate more with information flow among producers, intermediaries, firms, consumers and other players.

Role in Agribusiness

In order to sustain profits in agribusiness, it is imperative to make best possible use of e-logistics not only to procure the most suitable produce in a cost effective way but also to operate at with possible inventory without fearing loss of business.

Especially in the Indian context where small farm holders spread over a vast geography, the process of e-logistics should include connectivity (for information flow) and clustering. Connectivity in supply chain through e-logistics approach will result in better decision making as one will have better information about availability of produce at different places and wider choices as well. Similarly, clustering will result into minimising the movement of vehicle while moving into field for procurement.

How different from ICT

Though both e-logistics and ICT in agriculture emphasise the flow of information among various players, e-logistics is business centric and aims at supporting business houses in operating in an efficient manner, while ICT in agriculture is more of farm focussed and emphasises the

flow of information to farmers for a better decision making.

Symbiotic relationship

Except a few companies, not many have come forward to improve the situation at the farm level by empowering farming community with ICT enabled tools. The most famous and popular initiative of ITC i.e. e-choupal is the best example of how logistics and ICT tools can be integrated for farmers.

Though simple replication of e-choupal model may not always yield a good result, it is required to understand how well one can develop such tools in a more customised way which can ultimately help farmers and firms.

Thus the convergence of ICT & logistics has a great scope for application in agriculture supply chain where it has to be effectively linked to a highly dispersed populace, to provide greater benefits to farmers and higher value to the consumers.

DV Karla, PVSM, AVSM is former Director-General of Ordnance Services, Indian Army. Enamul Haque and Anu Peter are associated with NIAM, Jaipur. Views are personal.

The digital divide

The initial response to the latest round of spectrum auctions, with the Centre collecting a neat Rs. 20,436 crore as earnest money deposits from interested bidders, is bound to warm the cockles of finance minister Arun Jaitley's heart. Coming as it does at a time he is struggling to meet the fiscal deficit target for the year, the prospect of raking in over Rs. 1 lakh crore through the auctions must appear like manna from heaven.

However, the fierce competition for spectrum, signalled by the scale of the deposits, is likely to be bad news for Prime Minister Narendra Modi's vision of a 'digital India', where every village *panchayat* in the country is connected by broadband internet and every citizen can access services ranging from agriculture to education. While money can solve the physical connectivity issue — the Centre plans to spend Rs. 1,19,000 crore over five years to bring this about — the high cost of spectrum is likely to raise questions about affordability of services, especially since a large proportion of users are likely to access the internet through mobile devices.

The spectacular transformation in the telecommunications landscape has

been brought about largely through a sharp fall in telephony costs, driven by competition among service providers. Bigger volumes helped drive device costs down; so much so that India's gross mobile subscriber base today stands at over 900 million, of which over 790 million are active. Meanwhile, call costs have fallen from around Rs. 14 per minute in 1998 to under 50 paise per minute. Although rising spectrum costs are pushing call costs upwards, the real challenge lies in the cost of using data, not voice services. India's mobile data market has witnessed explosive growth, with mobile data consumption growing by 74 per cent in 2014, primarily driven by 3G data. With the base of 3G-capable devices rising to 54 per cent of total devices, and with 3G customers consuming three times the data of 2G customers, the market preference for quality, high-speed data connectivity is clear.

Providing such connectivity can transform the economy and drive growth just like the initial mobile revolution did a decade ago. But the full potential of the digital revolution can be realised only if accessibility is matched by affordability — impossible, if spectrum costs keep getting pushed higher. Combined with other policy roadblocks — for example, telecom companies being barred from trading in spectrum and working out intra-circle arrangements for data roaming — these end up hurting the consumer. The failure to evolve a mergers and acquisitions policy for the sector and release adequate spectrum for sale threatens the existence of several players and the fate of millions of subscribers. Auctioning spectrum is the most efficient way of allocating a scarce resource — in theory, with perfect competition and unrestricted entry and exit at play. Since reality is different, the Centre needs to urgently re-examine the welfare impact of high spectrum prices.

Lower wheat, rice crop to drag foodgrain output

The country's foodgrain production this season to June is likely to be nearly 8 million tonnes (mt) lower than 2013-14. According to the second advance estimate put out by the Ministry of Agriculture, capturing production also for the rabi season, pegged foodgrain production at 257.07 mt against 264.77 mt in the fourth advance estimate for last season.

A poor monsoon has impacted rabi acreage with data released by the Directorate of Economics and Statistics under the Agriculture Ministry indicating that coverage was 605.85 lakh hectares as on February 6 against 644.92 lh during the corresponding period in 2013-14.

“Compared to last year's record production of 265.57 mt, current year's

production of foodgrains is lower by 8.50 mt. This decline has occurred on account of lower production of rice, coarse cereals and pulses due to erratic rainfall during monsoon,” said the statement.

The first advance estimates estimated total production of kharif foodgrains at 120.27 mt that was lower by 8.97 mt from last season's kharif.

Production of wheat, the main rabi crop, is expected to fall marginally from the record 95.85 mt last season to 95.76 mt, while coarse cereals output is estimated to be 3.46 mt lower at 39.83 mt.

Total rice production is likely to decline by 3.61 mt to 103.04 mt after the kharif season experienced 12 per cent deficient monsoon.

Coarse cereals production has been estimated lower at 39.83 mt against 43.05 last season. Maize is one of the main reason for the drop with its output slipping to 22.97 mt (24.35 mt). Production of other crops such as bajra and jowar is also estimated lower.

Pulses output is projected at 18.43 mt, some 1.35 mt less than 2013-14, while total production of oilseeds is estimated at 29.83 mt which amounts to a 3.04 mt decline from the fourth advance estimate. Sugarcane production is likely to rise by 17.14 mt to 354.95 mt while total production of cotton is estimated at 35.15 million bales (of 170 kg each) against 36.59 million bales last season. Jute and mesta output is estimated at 11.47 million bales (of 180 kg each) for 2014-15, lower by 0.22 million bales.

Business Standard

Radha Mohan Singh Inaugurates 86th Annual General Meeting of the ICAR Society

Sh. Radha Mohan Singh emphasised the role of science in Agriculture while inaugurating the 86th Annual General Meeting of the ICAR Society New Delhi today. Sh. Singh said that science has an important role in increasing Agriculture productivity.

Referring to Mera Gaon Mera Gaurav, he urged Agriculture expert of the agriculture universities ICAR institutes to create awareness about new technology to farmers, which will help farmers in knowing about new farming Practices.

He also suggested a thought towards an institutional mechanism of linkage between Krishi Vigyan Kendra (KVK) and Agriculture Technology Management Agency (ATMA) at district level.

While addressing during the annual general meeting, he emphasised about communications technologies (ICTs) for creating awareness about Agricultural practice by using M-Kisan portal for sending information through SMSs, providing e-connectivity to KVKs, Kisan Chaupals, Farmers portal and Kisan Call Center.

Dr. Sanjeev Kumar Balyan, Union Minister of State for Agriculture urged the scientists to strengthen the Lab-to-land programmes and enhance communication with farmers. Sh. Balyan expressed confidence that scientists farmers interaction will help farmers and create knowledge about new technologies.

Sh. Mohanbhai Kalyanjibhai Kundariya, Union Minister of State for Agriculture emphasised about technological and knowledge empowerment of farmers through awareness creation via. Knowledge of latest know- how of technologies.

Sh. Radha Mohan Singh thanked everyone present for their participation in the 86th AGM of the ICAR Society.

During the Annual General Meeting Dr. S. Ayyappan, Secretary, DARE made a presentation on ICAR.

Cooperative banks major lender to agri sector in Odisha

State-run [cooperative banks](#) are far ahead of nationalised and commercial banks in providing credit to agriculture sector in Odisha, the state government said today in the assembly. “Cooperative banks provide 70 per cent of total short term crop loan and have more than 55 per cent share in all of agriculture credit,” said cooperatives minister, Damodar Rout, while answering a question asked by MLA, Dilip Ray. The

Bharatiya Janata Party (BJP) member had asked about the total credit disbursed by banks in [Odisha](#) since 2010-11 financial year to the farm sector. Between 2010-11 and 2014-15 (upto December 2014), the cooperatives banks disbursed Rs 26,662.23 crore as crop loan and agricultural term loan meant for buying equipment or creating infrastructure for farm produce. In the same period, nationalised and privatised banks lent Rs 22,243 crore to the farmers in the state. Despite higher advances, the cash deposited with cooperative banks are mere four per cent of total deposits of all banks in the state, the minister said in his reply. These banks are lending more than the deposits, he added. The Rourkela MLA had sought the reply of the state government regarding parking of government fund at co-operative banks and permitting them for pension and other treasury transactions since they are pioneer in lending credit to the farm sector. The minister said, the government has already ordered the departments to deposit their cash money with the cooperative banks. However, there are still some stumbling hurdles due to which the order cannot be implemented. “The additional chief secretary of state finance department has already asked the departments to deposit funds with cooperative banks since they are major lender to the agriculture sector. But the cooperative banks are not functioning as per the treasury code issued by the finance department. They will be allowed to make pension payments and conduct treasury transactions once they comply with the code,” said Rout in his reply. There are two major players in cooperative banking in the state — Odisha State Cooperative Bank (OSCB) and Odisha State Cooperative Agriculture and Rural Development Bank (OSCARD). Besides, around a dozen district cooperative banks operate at district and small town level to provide lending facility to farmers