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THE HINDU

Revolutionise farming to fight poverty: Modi



Reiterating his government's commitment to developing the agriculture sector, Prime Minister Narendra Modi asked the States to set up expert committees for drafting farm policies. A similar committee would be constituted by the NITI Aayog at the Centre and the common recommendations would be implemented.

Launching the 'Soil Health Card Scheme' at Suratgarh in Sriganganagar on Thursday, Mr. Modi said agricultural development was the strongest weapon for economic growth. "We need to revolutionise the agriculture sector by adopting scientific methods to fight poverty."

Mr. Modi said that earlier, the States' agriculture policies were dictated by the Centre, but now policies would be drafted by the Centre and discussed by the States.

SunEdison plans more solar parks

More number of commercial establishments and industries in the State are expected to go in for solar power systems as it is becoming economically viable.

Balaji Thirumalai, Director – DG Business and RSC Emerging Markets of SunEdison, told *The Hindurecently* that the company has a solar park in Tirunelveli with space for 18 MW solar power systems. It is looking at more parks in the State. With the option of open access, there is opportunity for more number of commercial and industrial electricity consumers to go in for solar power.

The company has installed over 12 MW solar energy systems in the State and solar pumpsets are a focus area. Farmers will be able to use the land during dry months too with solar power systems, he said.

Regarding market for solar energy across the country, he said that Gujarat and Rajasthan lend more to solar energy because of the geographical advantages. Maharashtra, Karnataka, Andhra Pradesh and Telangana have favourable solar policies. “National Capital Region is also interesting for us,” he said.

The company sees opportunities in rural electrification scheme. Off grid installations reduce grid power consumption in rural areas and these are small panels with battery. It has done these projects in about 100 sites in different States, he said.

Sri Lanka plans to sign n-pact with Pakistan

Sri Lanka is in talks with Pakistan to explore cooperation on nuclear energy, Power Minister Patali Champika Ranawaka said, days after India and the island nation reached a civil nuclear agreement in New Delhi. The Sri Lankan government has readied a memorandum of understanding to be signed with Pakistan to improve “technical capacities and human capacities.”

“We have already signed an agreement with Russian state-owned ROSATOM,” he told presspersons on Thursday. The island nation was also exploring possible collaboration with France and the United States.

However, the Minister ruled out a nuclear power plant project with the countries.

The agreement with India pertained to basic and applied research on peaceful uses of nuclear technology, production of radioactive isotopes in industry, agriculture and water management, he said

Cotton procurement on February 23

Cotton Corporation of India (CCI) will procure cotton from farmers at the regulated market located at Elamblaur Vadakku Madhavi Road here on February 23.

Price will be fixed depending upon the moisture, yarn length, and strength of cotton brought by farmers. Quality RCH2 and RCH20 variety of cotton with yarn length 27.5 to 30.5 mm will get Rs. 3,950 a quintal. MRC7918 and MRC6918 variety of long cotton will get Rs. 4,450 a quintal.

Cotton with 8 per cent moisture will get full price. One per cent price will be reduced with increase of 1 per cent of moisture after 8 per cent.

If RCH2 and RCH20 variety of cotton with 9 per cent moisture will get Rs. 3,910 a quintal. Cotton with more than 12 per cent moisture will not be procured.

Farmers who harvest cotton should dry it in shadow and maintain the moisture at eight per cent before bringing it to the regulated market, said Darez Ahamed, District Collector, in a release here on Thursday.

Steps had been taken to give cash to farmers within eight days after cotton was procured.

With the efforts made by the district administration, CCI has agreed to procure cotton at the regulated market at Perambalur. Perambalur occupies the first place in Tamil Nadu with respect to cotton area of cultivation and production. In the last three years, cotton is cultivated on an average on 27,230 hectares and 28,918 tonnes of cotton was produced.

Farmers happy with groundnut production

The Agriculture Produce Marketing Committee yard here in Yadgir has been flooded with groundnut.

Due to the good yield, farmers, who faced losses for green gram and cotton, expressed happiness with the stable market prices and the bumper yield.

According to sources, the prices ranged between Rs. 4,800 and Rs. 5,100 per quintal.

They also added that last year the highest price was around Rs. 4,500. Around 68,000 quintals of groundnut arrived at the yard between January 20 and February 17.

And commission agents have been transporting them on the day of their arrival giving space for fresh arrival.

Prices

“We are happy with the groundnut production and also the prices,” Mallikarjun, a farmer from Ramsamudra village in Yadgir taluk, said.

He also said that farmers recovered the losses incurred by green gram, which was hit by short rainfall during sowing and as well as the crucial period of yielding.

To eat or not to eat



At Lunar New Year, most Vietnamese families buy a Kumquat tree — a symbol of prosperity — but where once its fruits were candied and enjoyed as a delicacy, now they are left uneaten as food safety scandals batter consumer confidence in local produce.

While communist Vietnam may not make as many global headlines for safety lapses as neighbouring China, the problems facing its consumers are similar, and many of the harmful pesticides they fear most come from over the border.

At risk?

“Every plant is covered in pesticides now. Even the vegetables I buy in the market everyday,” retired teacher Mac Thi Hoa told AFP.

Like many Vietnamese who buy kumquat trees to welcome the New Year, Hoa used to cook the small orange fruits with sugar to make a sweet treat. Now she has stopped, fearing for her health.

“The sellers claim they don’t use chemicals on the tree but I don’t believe it,” the 65-year-old said, adding she now uses the fruit tree only for decoration.

Kumquat growers say that to make a profit they need to sell unblemished fruit, and they have to make sure their entire orchard ripens just before Lunar New Year — known as the Tet Festival — to meet huge demand.

This is difficult to achieve without the liberal use of insecticides and fertilisers.

“The kumquats won’t look beautiful,” without the use of chemicals, farmer Nguyen Thi Hang told AFP, even though they make the fruit toxic.

If you eat the fruits straight off the tree “it’s not good for your health,” she said, adding consumers should wait several weeks and wash the fruit carefully to try and remove chemical residue before consuming.

Experts say the fact that even a symbol of prosperity has become a health risk, highlights just how widespread the issue of chemical contamination has become in Vietnam.

Follow instructions

“Any insecticide can be dangerous,” farmer Vu Huu Nhung told AFP. “But I think it’s safe enough if you strictly follow the instructions,” he said, saying he was unsure what his made-in-China products contained.

According to Professor Nguyen Van Tuat, deputy director of Vietnam’s Agriculture Science Institute, over-use of pesticides is already having a “bad impact” — and things are getting worse. “Some farmers have increased the amount of chemicals they’re using,” he said, adding this puts both farmers and consumers at risk of chemical poisoning.

“The chemicals may also eliminate useful insects and could be causing various plant epidemics,” he told AFP.

Crisis of trust

Consumers “are hesitant. They don’t know where and how to buy safe products, they’ve lost their trust in (Vietnamese) products’ quality,” Professor Tuat said.

They also face the risk of widespread bacterial contamination, in part due to poor hygiene standards throughout the food chain.

Some local companies are seeking to produce more organic products, but Vietnam has no rigorous certification process or testing and many struggle to find organic fertiliser and battle cross-contamination issues.

Not everyone is prepared to pay the additional costs for organic vegetables either. Many, like retired teacher Hoa, prefer to take their chances in the market.

“Clean or not, we have to eat fruit and vegetables every day,” she says.AFP

Sellers claim they don’t use chemicals but I don't believe it.

The kumquats won’t look beautiful without the use of chemicals.

Any insecticide can be dangerous, but I think it's safe if you strictly follow the instructions. Some farmers have increased the amount of chemicals they're using.

What is the significance of the tree?

- *The Kumquat tree is considered a symbol of prosperity.*
- *The trees are used to welcome the Lunar New Year and the small orange fruits are cooked with sugar to make a sweet treat.*
- *What once ushered in festivities, now poses a health risk with fears that insecticides are used liberally.*

Living the green dream



It could well be one of those picturesque farms you come across in the hill stations, luscious and green, complete with the occasional moos, quacks and clucks, to add to the rustic charm. But Papa's Dairy farm, where yoga master and weekend farmer Tara Laju is mistress of all she surveys, is just 13 or so km from the hustle and bustle of the city, in a quiet vale in Mulayara, down the road from Vilapilshala. And Tara is quite unlike any farmer you may have come across in your old James Herriot books. There are no tweeds or gum boots in sight but petite Tara does pack a punch as she traipses up and down the well-tended farm in her heels, instructing farm hands as they plant a new season of vegetables, overseeing the milk processing unit and petting a cow here and a hen there.

“There's something refreshing about seeing something grow or drinking a quart of fresh milk,” says Tara, proudly pointing to the morning's harvest of snake gourd. “We are a completely organic farm, and because of that the yields are often quite low. Also, you won't get the kind of super-size vegetables that we've all become used to. The snake gourds are small and

the red amaranthus over there won't grow much bigger than it is now," she explains.

Papa's Dairy is three-and-a-half acre organic farm where they rear some 80 Holstein Friesian cows, farm eggs from their 50 hens and ducks and grow all manner of vegetables, from bitter gourd and yams to runner beans and brinjal. "It's a self-sustaining farm. We breed the cows here itself – we have a bull for the purpose. Cow dung is used as fertilizer. We have a water treatment plant on site, the slurry of which is also used as fertilizer," says Tara.

The farm was started in 2006 by Tara's husband, Captain Laju Cherian, a commercial pilot, who took voluntary retirement from the Air Force. "He grew up in Angamaly drinking fresh cow milk and wanted our daughter, Sruthi [who is in class 12 in St. Thomas] to grow up on healthy food. That's why he named the farm as Papa's Dairy," explains Tara, who took over the running of the farm in 2010. "I was actually very reluctant to take it all on. I was more or less a city girl. But the farm and the animals grew on me and now it's become my passion. I am living my husband's dream!" says Tara.

Things weren't always this smooth, though. "It took me five years of day-night toil to get it running smoothly like this, labour issues being the chief concern. We initially had 150 cows but had to cut down the number to a more manageable size. Now, it's a completely mechanised operation and we produce some 1,500 litres of milk a day, supplementing the supply by sourcing milk from small time framers in the locality," she explains. Apart from retailing milk under the Papa's Dairy brand, they also produce pure ghee, both of which are available in select stores across the district. "The most challenging thing about running a dairy farm is hygiene. You've got to be vigilant 24x7 [there are surveillance cameras all around which she can access on her phone] and we have to ensure that the milk processing unit and its surroundings are cleaned top to bottom at least three times a day," she says.

Tara attributes her success at farming to the natural way of life. She's been "living and breathing" yoga since she was a child and is a well-known yoga guru, having taught over 3,500 people, since she began taking classes in the city in 2001. "Yoga makes me happy, energetic and confident, which in turn helps me run the farm with a positive outlook. I think the farm is successful because my husband and I don't think of it as a business as such. In fact, I supply most of the vegetables and eggs to my clients themselves," she says.

Tara will soon open a vegetable counter at her Yuj Wellness centre in Kanaka Nagar, Nanthancode. “I want to inspire people to take up weekend farming. It’s very rewarding,” she adds.

Centre removes MEP on potato export

The government on Thursday removed restrictions on export of potato by doing away with the minimum export price, a move that is likely to help farmers get better prices.

With rise in food inflation, the Ministry of Commerce and Industry, in June last, had imposed a minimum export price of \$450 a tonne on potatoes to tame rising prices and augment domestic prices.

“Keeping in view of the prevailing lower prices and higher domestic availability of potato, the government has decided to remove the MEP on export of potato,” an official statement said. — Yuthika Bhargava

Learning by example

Unity in the farming community and commitment to work are instrumental in aiding the success of farmers in this model village in Armour mandal, which has made headlines several times.

Farmers in this village reap four crops in a year, which generally takes farmers coming from other parts of Telangana by surprise. Exactly the same happened to a group of 50 farmers, who arrived from different villages of Mahabubnagar district under the banner of the Jadcharla Farmers Society as part of their visit to the village on Thursday.

Expressing curiosity over the farming methods of Ankapur farmers, the visiting farmers said that they usually encounter a lot of weed in crops whereas here, it was not a problem at all due to the awareness prevailing among farmers. The way farmers here change the cropping pattern is worth being emulated by farmers in other parts, said Kasiram Goud, a farmer from a village near Jadcharla.

Deputy Director in the Agriculture Directorate, K. Ramulu, who coordinated the exposure visit, said that farmers, in order to constitute a model society in their area, had already visited Mulkanur society and now were in Ankapur. In the coming days, they would be taken to ICRISAT and Bengaluru for exposure to horticulture, he said.

Like in this village, if farmers of other villages too generate their own seed, fertilizers and learn marketing methods to get remunerative prices for their produce, it would become profitable. “We want to enable

farmers to focus on preparing organic manure for cost-effective and pollution-free farming,” he said.

One of the farmers in the group, Ravishankar, said that it was wonderful to learn that farmers here were producing only Irrigation Dry crops and not going in for paddy, thereby reducing dependence on water. He expressed surprise over the existence of three nationalised commercial bank branches in the village.

NABARD organises seminar for farmers

The National Bank for Agriculture and Rural Development (NABARD) on Thursday organised a district-level seminar on solar water pumping systems, agri-clinics and agri-business centres and other government sponsored subsidy schemes.

Reserve Bank of India (RBI) AGM Kameswara Rao was the chief guest. The workshop was organised with an aim to bring awareness among farmers and other stakeholders about the solar photovoltaic water pumping systems for irrigation purpose, agri-clinics and agri-business centres, and other government subsidy schemes.

Banana auction fetches Rs. 1.65 lakh

About 2,600 bunches of different varieties of banana were auctioned at the Integrated Market Complex for Banana at Thiruchendurai in the district on Tuesday.

Fifty-three farmers and 18 traders participated in the auction. Top quality rsthali variety fetched a maximum of Rs.275 a bunch, poovan Rs.200, Monthan Rs.180, Karpooravalli 185 and Pachaladan 270 a bunch.

The fruits, totally sold for Rs. 1.65 lakh, were brought by farmers from Kiliyanallur, Sirugambur, Sennakarai, Sengudi, Gunaseelam, Amoor, Kuzhumani, Lalgudi and Andhanallur areas, an official release said.

Row between paper mills, farmers ends



The State government has brought back smiles to social forestry planters in Prakasam district by reaching an understanding between them and paper mills to restart purchase of subabul and eucalyptus logs from Friday.

Paper mills agreed to arrange for bank guarantees and promised to purchase the logs at the prices fixed by the government during a marathon-meeting held by Agriculture Marketing Regional Joint Director K. Srinivasa Rao with representatives of paper mills and farmers at the Agriculture Marketing Committee on Thursday.

Briefing the media on the deliberations, Agriculture Marketing Assistant Director Syed Rafi Ahamad said that the paper mills would pay Rs 4,400 per tonne for subabul and Rs. 4,600 per tonne for eucalyptus till a new agreement is reached for one year.

While two paper mills have already arranged for bank guarantees, other have agreed to follow the suit, Mr. Ahamad explained, adding that a new tripartite agreement would be reached in Ongole shortly and the same would be applicable for the entire State. Meanwhile, Andhra Pradesh Rythu Sangam (APRS) district Secretary D. Gopinath said that the farmers were ready to offer their produce to the mills provided the latter implemented the agreement reached last year in letter and spirit. The ryots stopped the sale for a week following subvention of the agreement and mounting payment arrears by paper mills. APRS district President P.Venkat Rao wanted the government to ensure that paper mills cleared the pending arrears to the tune of Rs. 4.5 crore.

How stress can make you poorer

Stress can make people with high level of anxiety poorer by denting their confidence to compete, suggests a new study.

The findings suggest that stress can even be a cause of social inequality rather than just a consequence of it.

Two major factors — stress and the person’s general anxiety — influence people’s confidence, explained researchers Carmen Sandi from the Swiss Federal Institute of Technology in Lausanne (EPFL) and Lorenz Goette from the University of Lausanne in Switzerland.

Technically, anxiety is referred to as “trait anxiety”, and it describes how prone a person is to see the world as threatening and worrisome.

Stress can actually boost the competing confidence of people with low trait anxiety, but significantly reduce it in people with high trait anxiety, the findings showed.

For the study, the scientists designed a behavioural experiment, which began with more than two hundred people taking two online tests: one to assess their IQ, and one to measure their trait anxiety.

All participants, stressed and non-stressed, were then given two options in a game where they could win money: they could either take their chances in a lottery, or they could use their IQ score to compete with that of another, unknown participant’s — the one with the higher IQ score would be the winner.

In the non-stressed, control group, nearly 60 percent of participants chose the IQ score competition over the lottery, showing overall high confidence in the participants, regardless of their trait anxiety scores.

But in the group that experienced stress before the money game, things were different. The competitive confidence of participants varied depending on their trait anxiety scores.

In people with very low anxiety, stress actually increased their competitive confidence compared to their unstressed counterparts while in highly anxious individuals, it dropped.

Stress, it seems, can raise or suppress an individual’s confidence depending on their predisposition to anxiety.

Can high-fat diet cut heart attack damage?



Eating high-fat diet may protect the heart in the short run only, says a study with a warning that it is not a license to eat a lot of cheeseburgers and ice cream.

It is well known that over the long run, a high-fat diet increases the risk of heart attack and stroke.

“Learning about how fat, in the short run, protects against heart attacks could help in the development of better therapies,” said Walter Keith Jones from the Loyola University Chicago Stritch School of Medicine in the US.

Jones said that in the short-term, a high-fat diet protects the heart through a mechanism called autophagy, which works somewhat like a garbage truck.

The study may provide new insight into the “obesity paradox”: Obesity is a major risk factor for heart disease. But once a heart attack or heart failure does occur, moderately obese patients tend to live longer.

Proteins damaged by the heart attack are removed from heart cells as if they were garbage, thus increasing the chances the cells will survive.

In the study, mice were given a high-fat diet (60 percent of calories from animal fat) before experiencing heart attacks.

Mice that consumed a high-fat diet for either one day, one week or two weeks before the heart attack experienced about half as much heart damage as mice that ate a control diet.

The benefit was greatest among mice that ate a high-fat diet for one week before the heart attack.

But in mice that ate a high-fat diet for six weeks, the protective effect disappeared.

The study was published in the American Journal of Physiology – Heart and Circulatory Physiology.

PM Modi praises MP's agriculture miracle

Madhya Pradesh received Krishi Karman award for maximum wheat production for third consecutive year in Suratgarh, Rajasthan on Thursday. Prime Minister Narendra Modi gave away the award to state for maximum increase in wheat production. Award comprises Rs 2 crore, trophy and citation. Chief minister Shivraj Singh Chouhan was scheduled to receive this award, but he could not fly to the venue due to inclement weather, an official spokesman said.

Senior officers of Union ministry of Agriculture received the award on behalf of state.

Modi also gave away Individual Krishi Karman awards to two farmers of Madhya Pradesh. Bhopal district's Manohar Patidar and Khandwa district's Rekha Soni got the award for registering maximum increase in wheat production.

Prime Minister, on the occasion, said that Madhya Pradesh has managed to get rid of BIMARU tag under leadership of Shivraj Singh Chouhan. State has made miraculous achievements in agriculture sector and area under irrigation has increased manifold. Besides, modern farming techniques and methods have been promoted.

"Due to its agriculture growth, Madhya Pradesh has surpassed states in Ganga and Yamuna basins in agriculture sector, he added.

Madhya Pradesh was conferred this award for excellence in overall food grains production in years 2011-12 and 2012-13. Krishi Karman Award for year 2013-14 has been conferred on Madhya Pradesh for excellence in wheat production.

Pursue creative interests to stay healthy

New research studies show how being engaged in creative activities alters our brain chemistry and can boost our physical and mental health

Push your creative boundaries: Indulging in a creative activity gives a sense of physical and psychological well-being. Simple activities like knitting, listening to music, drawing, crafting, reading literature can help lower stress, relax your muscles, increase self-esteem and productivity. Experts believe that creative pursuits can work like a natural

antidepressant by giving a push to happy, positive emotions. Even when you are feeling stressed out, go out to visit art galleries and museums. That connect with art gives a different perspective to life.

Write your journal: Are you feeling stressed out? Just sit down with your journal and a pen. Note down your thoughts. Don't try to hold back. Just write the thoughts as they keep coming to you. Writing is cathartic. It erases negative emotions. As studies have shown personal/expressive writing is helpful for people suffering from any kind of psychological trauma. Stress hormones get released when you let our emotions express through words.

Use your hands: In an age of technological advancement, we have forgotten to do things using our hands. Research shows that using hands always bring in good results like it helps elevate one's mood, stimulate senses and foster psychological well-being. So, indulge in gardening, knitting, pottery, cooking and baking. Do things with your mind and see the difference. Crafting combines self-expression, creative improvisation and problem-solving with mindfulness, which slows down your breathing and can decrease heart rate, blood pressure and muscle tension. Building, sewing, pottery, gardening, carpentering activates your brain's reward centers to release dopamine, a neurotransmitter that's sometimes described as a natural antidepressant.

THE HINDU Business Line

Centre may cut import duty on oilseeds



The Centre is considering reducing the Customs duty on oilseeds import as part of its “Make in India” programme. The duty could be cut in the Budget if the Finance Ministry decides to bite the bullet.

“Serious thought is being given to reducing import duty on oilseeds. But, whether the Government will opt for it or not, we will have to wait and watch,” said an edible oil industry source.

Currently, import of oilseeds attracts 30 per cent duty besides 4 per cent special additional duty. The total thus works out to 35.2 per cent which is unviable for any oil mill to import and manufacture oil.

Oilseeds import is also subject to quarantine conditions.

Though some 1,000-2,000 tonnes of safflower were imported from Australia a few months ago, no bulk shipment has taken place in recent times in view of the prohibitive duty structure.

Inverted duty structure

To promote its “Make in India” programme, the Government is also considering an inverted duty structure wherein the import duty on raw materials will be lower than on finished goods.

Going by this, there are chances of a cut in oilseeds import duty, sources said.

While the duty on oilseeds import is 30 per cent, it is 7.5 per cent for crude oils and 15 per cent for refined oils.

The fact that the Prime Minister’s office has sought the industry’s views on reducing the import duty shows to prove the importance the Government attaches to this issue, sources said.

The Ministry of Agriculture is in favour of oilseeds import with the Commission for Agricultural Costs and Prices (CACP) recommending it last year itself.

Farm panel views

Sharad Pawar, the agriculture minister in the United Progressive Alliance Government, had concurred with the CACP’s recommendations.

When contacted, BV Mehta, Executive Director of Solvent Extractors’ Association of India, said the industry body had favoured imports but wanted the Government to ensure a few things to protect farmers’ interest.

“We have told the Government to ensure three things. One, import of oilseeds should be allowed only during the lean period of April-September.

Two, no permission should be given for building additional refining capacity in the country.

Three, the landed cost of oilseeds should be above the minimum support price of the concerned commodity,” said Mehta.

Arrivals of oilseeds dry up after the rabi crops (rapeseed/mustard and groundnut) are harvested in March-April.

There is a huge gap before the kharif arrivals begin in September-end.

According to the Solvent Extractors’ Association, no permission should be given for additional refining capacity in the country because only 30 per cent of the capacity is being utilised currently.

By ensuring the landed costs are above minimum support prices of concerned oilseeds, growers’ interests could be protected, said Mehta. The PMO had held consultations with the industry since vegetable oil imports are among the top three commodities accounting for a huge foreign exchange outgo. In the last oil season ended in October, 11.6 million tonnes of vegetable oils valued at Rs. 60,000 crore were imported.

This season, imports are projected to rise to 12.5 million tonnes with shipments into the country already up 17 per cent during November-January.

Import of oilseeds can help reduce the foreign exchange outgo, while also encouraging companies that manufacture edible oils utilise the capacity. In addition, it can help the industry export oilmeals, derived from crushing the oilseeds besides ensuring export of cooking oils too.

Lemken India Agro-Equipment looks to expand dealerships

Lemken India Agro-Equipment, the wholly-owned subsidiary of German manufacturing major Lemken GmbH, aims to expand its dealerships from 20 to 34 in the 2015-16 fiscal and establish a presence in Gujarat and Madhya Pradesh to further its foothold in the Rs. 3,000-crore domestic agro-equipment market.

Lemken dealers are present in Punjab, Maharashtra, Tamil Nadu, Andhra Pradesh and Karnataka.

The company will also ship its first consignment of eight ploughs to Turkey this month and is looking to export between 150 and 200 units to South Africa, South-East Asian countries and the European market this year.

Managing Director and CEO Arvind Kumar said the firm leveraged technology over price competitiveness in the pre-harvest agri-implements it manufactures. The expansion plans are being undertaken after healthy returns posted since Lemken began commercial production at its Nagpur facility in January 2013.

“We are focusing on Gujarat and MP now. There’s no real competition in terms of technology in India, it’s only in pricing. There are acquisition constraints since financing isn’t available,” he told *BusinessLine* .

The company sold 1,000 units of hydraulic reversible ploughs (1 MB, 2 MB and 3 MB) in 2014-15 and was aiming to see that rise to 1,500 units in the coming fiscal. Kumar stated that the turnover of Rs. 15 crore last year would likely rise to Rs. 25-30 crore in 2015-16.

Embrace technology

Kumar said State governments need to gear more towards promoting technology in agriculture.

“State authorities provide subsidy on the basis of the lowest priced product. So, if a local plough costs Rs.70,000 and the subsidy of 50 per cent is given, that Rs. 35,000 is the same amount given for our plough that costs twice as much but is more fuel-efficient and has a longer life,” he said, claiming productivity has risen by 15-20 per cent for farmers who used Lemken implements.

Around Rs. 80-90 crore has been invested in the Nagpur plant, which is functioning at 50 per cent capacity, and Kumar expected the figure to rise to Rs. 120 crore as the firm diversified its product portfolio to include a power harrow and tine cultivator this year

Food processing ‘can drive rural economic growth’

The level of food processing is very low in India and the sector has the potential to become the engine of rural economic growth, according to K

Ramasamy, Vice-Chancellor, Tamil Nadu Agricultural University (TNAU), Coimbatore.

He urged Indian industry to tap the potential of this sector and replicate the success that IT companies had achieved globally.

Inaugurating the 'Agri and Food Processor Conclave -- finance, technology & market', organised jointly by Assocham and the Ministry of Food Processing Industries, here on Thursday, he said the level of food processing in the country was very low at 6 per cent whereas in developed countries it stood at 60 to 80 per cent. Even most Asian, Latin American and other developing nations scored over India with a food processing level of more than 30 per cent. Ramasamy was confident the food processing sector could be the driver of rural economic growth in India. Conceding that the sector faced headwinds, he said that with concerted efforts India could emerge as a leader in global food processing.

Think big, think globally

He pointed out that the big industrial houses in the country had a significant presence in the food processing sector and urged them to 'think big and think globally' about the future of this industry. K Singaravadivel, Director, Indian Institute of Crop Processing Technology (IICPT), said Tamil Nadu had the potential to be the 'food processing capital of India' as it was the largest producer of banana and tapioca and the second largest producer of coconut and eggs. The state also ranked third among producers of coffee, tea, and sugarcane in India.

EK Ponnuswamy, President, Coimbatore District Small Industries Association (CODISSIA), said the sector was constrained in backward and forward linkages. He urged the state government to forge alliances with central government bodies, bankers, financial institutions and technical & management institutions. Surendra Singh, Assistant Industrial Advisor, Ministry of Food Processing Industries, spoke of potential areas for investment in Tamil Nadu, particularly in fruit processing, fruit wines, vegetable and medicinal plants.

KV Rao, Chief General Manager, Nabard, detailed the support extended by his organisation in building rural godowns, strengthening of agri-marketing infrastructure, grading and standardisation, agri-clinic and agri-business centres, etc.

Ravindra Sannareddy, Chairman, Southern Regional Council, Assocham, said the agro-climatic conditions of Tamil Nadu made it an ideal location

for agricultural and horticultural crops and for setting up food processing industries.

Business Standard

ONGC, Super Wave Technology to co-develop alternative for hydraulic fracturing

Oil and Natural Gas Corporation (ONGC) has signed a Memorandum of Understanding with [Super Wave Technology Pvt Ltd \(SWTPL\)](#) - a company incorporated by Society for Innovation and Development at the Indian Institute of Science (IISc), Bangalore - for development of an alternative to [hydraulic fracturing](#) or fracking technology that is used to produce [shale oil](#) and gas.

The MoU was signed in Bangalore on February 18, 2015 in the presence of Prime Minister Narendra Modi, petroleum minister Dharmendra Pradhan, D K Sarraf (CMD, ONGC) and Prof Anurag Kumar (Director, IISc).

Hydraulic fracturing, successfully employed in US, has led that nation to surplus shale oil and gas production in the past few years but requires water in huge quantities.

"With this partnership, [ONGC](#) will provide assistance to SWTPL for developing shock wave assisted fracking technology, an alternate to the conventional hydraulic fracturing. If proven effective as a substitute to hydraulic fracturing, in particular for shale gas exploitation, it will be a game changer for the oil and gas industry," ONGC said in a press release.

Hydraulic fracturing requires very large quantities of fresh water and huge quantity of energy for its pumping at high pressures. Under the technique, the oil well produces substantial quantity of effluent water which needs to be disposed. These are some of the issues that are bothering the current hydro-fracturing technology. Therefore, the global oil & gas industry has been searching of late for alternate technique for fracturing which requires minimum or no quantity of water.

"Shock waves are one of the most efficient energy dissipation phenomena. Sudden release of massive amount of energy in a miniscule space triggers the formation of these waves. The impulse generated by these waves can be used for many interesting and innovative applications," added the release.

As part of the new project, Super Wave Technology proposes to use shock or blast waves for initiating fractures in sandstone or shale reservoirs located initially at depths of 1,000-1,500 meter. ONGC claimed the pact will promote development and field implementation of Shock Waves technology for oil and gas fields. If successful, the technology will be jointly patented by ONGC and SWTPL for further commercial benefits worldwide.