

05.03.2016

## THE HINDU

### An app to root out farming troubles



*A new app called Sreshta Krishi lends a helping hand to new home farmers*

If you are one of those people who dream of having a vegetable garden, but don't know one end of a spade from the other, then the folks at Prakruthi have a solution that's just a click away.

As an extension of their activities to promote an environmental-friendly lifestyle, organic farming and sustainability, the techies of Thiruvananthapuram's Technopark 'green club' have come out with a new Android mobile application, 'Sreshta Krishi', to help aspiring home farmers "meet the challenges of day-to-day farming".

Biju Sundaran, who spearheads the nearly one-year-old Prakruthi, says, "One of our mottos is to promote organic farming in homes. We have been conducting regular training sessions. Although the sessions proved invaluable, we realised that there was a limit to spreading knowledge by just holding such events or handing out information pamphlets, especially considering that there were plenty of takers for organic farming, both within and outside Technopark. An app is an easy option to spread awareness. It was initially meant for techies, but anyone can download it."

He also developed the content for the app, based on expertise from agriculture expert C.K. Peethambaran, former director of research, Kerala Agricultural University, and entomologist Reghunath. He also used research documents available online. Prakruthi member Anand Viswanathan was in-charge of app development, and Santoshkumar Sasidharan designed it.

The makers say that the app's still a work in progress, but it already comes packed with information on essentials and dos and don'ts of farming.

They've included general information on all kinds of crops (mainly vegetables and fruits) that can be grown in a tropical climate. These include tomato, red amaranthus, snake gourd, spinach, bitter gourd, ladies finger, cucumber, salad cucumbers, and watermelon among others. They have even listed different varieties of each crop, apart from details about their growing season and sowing/planting methods. Another interesting aspect about the app is that under each crop, there is a detailed description about pests, friendly insects, diseases and deficiencies, accompanied by photos.

"Many people start off home farming quite enthusiastically, but find themselves at a loss when their crops get affected by some pest, or when it comes under bacterial/fungal/viral attack. What often happens is they let the particular plant just wither away, without realising there are solutions to each problem. Now, all they need to do is look at relevant information and reference photos, and they're all set. In case there is still any doubt, experts are just a call away," explains Biju. The app also has a knowledge-sharing space.

*The Sreshta Krishi app is available free for download on Google Play Store.*

***Their motto is to promote organic farming in homes.***

### **Preserving water**

*The ban on tank irrigation in Kolar district has led to a borewell drilling spree, but the remedy is here. By S. Vishwanath*



The sun beats down hot in February itself in Kolar district as you make your way to the tank behind a large hillock. The rains in November have been good and the tank is half-brimming with water, which is a beautiful sight. The open wells just below are full, yet the command area where rice should have covered the entire expanse green appears brown.

The farmer below is busy getting a borewell drilled. It has gone down to a depth of 700 ft., he says and will cost a lakh of rupees. This is puzzling and he explains that there is a ban in the district on using the tank for irrigation. The idea seems to be that it should be used to refill the aquifer by acting as a percolation tank.

A brief examination indicates that the tank has not be de-silted for years and virtually all recharge has stopped. In Kolar, upto 1.8 metres of standing water can evaporate in a year. Is it therefore that the magical resource called water which appeared as unusual rains of November will simply be gone with the wind? This seems a sheer waste of a scarce resource.

The question that emerges is why are we unable to fully understand the interface between surface water and groundwater? Why are we not able to put simple systems such as a water level measure, a evaporation measure and basic measures of understanding percolation?

There was a Tank Users Group constituted some years ago under a World Bank-aided programme called 'Jala Samvardhane', but that group is defunct.

### **Evaporating**

In tank after tank, there is water yet it seems to simply be evaporating. Each tank is different from the other and we are simply unable to work with any degree of granularity to manage them. Bland district-level orders is how we operate. Empowered local groups are not a legacy we seem to leave.

The ban on tank irrigation has led to a borewell-drilling spree, thus depleting the very groundwater it seeks to conserve. The borewells will soak up electricity which was not required under tank irrigation and the very same paddy, a water-intensive crop, will be grown.

### **Only for the rich**

Only the rich farmers who are capable of drilling borewells will be able to grow a crop. A situation of distress in agriculture will be further negatively reinforced.

By not understanding scientifically and hydro-geologically the interface between surface water and groundwater, by not understanding the capacity and behaviour of shallow and deep aquifers and by not influencing correct behaviour for the water use, we create and reinforce a water crisis with the best of intentions.

It is in the interest of us as a water-short and an agrarian society that we develop quickly a deeper understanding of aquifers and work with a unit which can preserve water from evaporation and if managed well provide drinking water security to people and livestock.

That would be water wisdom.

### **Need to open more agricultural colleges, says scientist**



Agriculture scientist S. Ayyappan says that more agricultural colleges will help meet the demand for manpower in rural areas.— File Photo

Agriculture scientist S. Ayyappan, former director of Indian Council of Agriculture Research (ICAR), has said that there was a need to open more agricultural colleges and universities to meet the demand in the rural areas in agriculture.

Talking to *The Hindu* here on Friday, Dr. Ayyappan, president of the National Academy of Agricultural Sciences, said that currently 30,000 graduates were churned out of the 73 agriculture universities and 500-plus agriculture colleges in the country and this figure needs to be more than doubled to meet the skilled manpower requirement in agriculture sector.

He said that one major impediment in starting more agriculture colleges and universities was finding the required farm land for hands-on training to students in the colleges and universities.

“Without the required agriculture land, no agriculture college or university can function effectively,” he said.

Dr. Ayyappan said that there was also a need for uniformity in reserving certain seats in agricultural institutions for farmers’ children.

He said that to increase the trained manpower and skilling up the youths in the rural areas, the certificate and diploma courses in agriculture can be started in the universities and agricultural colleges.

However, care should be taken that quality of education is ensured while offering new courses as well starting new agriculture colleges and universities, he warned.

### **Organic farming projects in 13 grama panchayats**

The *Jaiva Jyothi* and *Harithasree* project implemented jointly by the district panchayat and the Kudumbasree Mission will cover 13 grama panchayats for the promotion of organic farming.

A sum of Rs.60 lakh will be spent on the projects, which will be implemented with the cooperation of Kudumbasree self-help groups in villages. The local Krishi Bhavans and the Agriculture Department offices will also extend the field support to the farmers.

Grama panchayats already included under the scheme include Kodenchery, Maniyoor, Kottur, Puthupadi, Panangad, Ayanchery, Balussery, Chemanchery, Mavoor, Kavilumpara, Unnikulam, Chathamangalam and Kakkur. According to the project coordinators, organic vegetable farming and large-scale plantain cultivation will be given priority under the schemes.

For the successful implementation of the project, women's clusters have already been formed in the selected grama panchayats. According to officials, 140 such groups have started work under the schemes. Along with the Kudumbasree groups, rural farmers' groups will also be allowed to join the scheme and receive the eligible financial support from the government.

Project coordinators say the *Jaiva Jyothi* and the *Harithasree* schemes will help farmers to incorporate modern organic farming methods in traditional ways of cultivation.

“It will also provide them quality vegetable seeds, labour support and organic manure at affordable rate. Residents' associations and similar groups can undertake farming ventures under the scheme,” they said.

***Kudumbasree***

***self-help groups***

***to assist project***

## ***Rural farmers' group to join project***

### **KASSIA to organise three-day agriculture trade fair**

In order to enlighten farmers about modern techniques in agriculture and help them deal with issues related to labourers, the Karnataka Small Scale Industries Association (KASSIA) has organised a three-day agriculture trade fair under the banner 'Agro-Tech Expo 2016' here starting April 22.

KASSIA president V.K. Dikshit and Sudhakar S. Shetty, convenor of the event and also president of the Mysore Chamber of Commerce and Industry, said that apart from educating farmers about modern agriculture machinery, they would also be given guidance on how to avail loans and subsidy schemes of the government to purchase machinery.

They added that officials of different banks would be invited and they would furnish details about loans and subsidies. The banks would also sanction loans to farmers on the spot if they furnished the necessary documents.

The aim of the event was to achieve sustainable agriculture and to improve the farmers' standard of living using modern techniques.

Farmers faced a lot of trouble due to the unavailability of labour everywhere and there was an urgent need to make use of agriculture machinery to carry out work without depending on labourers. Many latest agriculture machineries were introduced with which farmers could not only carry out activities on a scientific basis but also get optimum returns, Mr. Dikshit said.

Food processing offers great potential not only for value addition but also for creating jobs for the teeming millions in rural areas and also for the development of those areas, said Mr. Shetty.

He added that the focus will be on agriculture, animal husbandry, dairy and poultry, fisheries, food processing, horticulture, floriculture, and agriculture engineering.

Agriculture plays a big role in shaping the economic growth of the country.

It accounts for the livelihood of 50 per cent of country's population and around 13 per cent of GDP, Mr. Shetty said, adding that in spite of the great progress made in this area, India still remains agriculturally backward in terms of cultivation practices, storage, transporting and distribution of produce, as a result of which a large portion of the food grains and horticulture produce turn into waste.

Seminars and workshops will be held in three day programme, which is being jointly organised by KASSIA, the State government, Karnataka State Small Industries Development Corporation (KSSIDC), National Small Industries Corporation (NSIC) and Mysore Chamber of Commerce and Industry and Karnataka State Department of Agriculture (KSDA), Mr. Shetty said.

The exhibition will have 250 exhibitors from five states, Mr. Dikshit said, adding that over 140 stalls would be erected at the Maharaja College grounds.

*Agro-Tech Expo 2016, which will begin*

*in Mysuru on April 22, will educate farmers on modern agricultural machinery and*

*on how to avail themselves of various loans and subsidies*

**Two common facility centres for coir products coming up in Tirupur district**

Two common facility centres are all set to come up very shortly at Palladam and Kangayam to manufacture value-added products from coir that finds market not only in India but also abroad.

The units are the initiatives of two sets of micro and small entrepreneurs in the respective areas under a consortium approach, who have been till now doing small scale trade using coir and its products on individual basis.

They will also be involving coconut farmers too in the new ventures. Coir Board, under Government of India, is extending grants to the tune of 75 per cent of the capital expenditure incurred for the two ventures. While the Palladam unit is coming up at an outlay of Rs 4.6 crore, the cost of setting up the Kangayam unit has been pegged at nearly Rs. 4 crore. “Grant from our side is earmarked from the corpus created by the Union Government under the Scheme of Fund for Regeneration of Traditional Industries”, Coir Board regional officer G. Poopalan told *The Hindu*. The unit at Kangayam will be producing novel products such as spinning yarn and geo-textiles from coir fibre, while the Palladam unit will manufacture coir pith blocks meant for use in commercial nurseries and greenhouses and coir grow bags.

According to Mr. Poopalan, the value-added products selected to be rolled out from the two units have great demand across the globe.

## Tomato prices crash



The glut situation is clearly hitting tomato farmers of Thalavadi rather hard below the belt.

Surplus supply has caused the price of tomato to crash to just Rs. 5 a kg on Friday. The demand-supply dynamics has been causing misery to the cultivators for a month now.

The price has been fluctuating between Rs. 10 and Rs. 5. According to tomato traders, several farmers have left the tomato crop on their fields to wither or let cattle graze on the produce due to the unremunerative price.

A daily wage of Rs. 400 has to be paid to a farm worker and the transport costs in addition would otherwise cause heavier loss to the cultivators, a trader said.

Horticulture Department officials say the price fluctuation for perishables was not unusual.

In the case of tomato, the average cost of cultivation is Rs. 25,000 an acre, and the productivity ranges from 10 tonnes to 12 tonnes an acre. Farmers could evade loss if the price of tomato is in the range of Rs. 10 per kg, but below that level, the loss is bound to be heavy, official sources said.

Since the price is Rs. 5 at the retail point, the field rate would not exceed Rs. 3 a kg, thereby pushing the cultivators to distress situation of letting cattle graze on the field rather than spend on harvesting, the sources said, adding that there is no solution in sight since even if the scope processing tomato is explored, the culture of consuming packaged tomato is not prevalent.



## Small onions flood Salem markets



The heavy arrival of small onions to all the 11 Uzhavar Santhais in the district has led to a fall in its price in the last couple of days.

The farmers have raised 'sinna vengayam' in a large area in Kannankurichi in the district, Rasipuram and its surrounding areas in Namakkal district, and in Pollachi.

There has been a spurt in the arrival of small onions in the last couple of days to Suramangalam, Hasthampatti, Thadagapatti, Ammapettai Uzhavar Santhais in the city and in other parts of the district.

Due to this its price has fallen from Rs. 26 a kg last week to Rs. 18 on Thursday.

Due to the drought conditions, the farmers have given preference to horticulture crops to paddy across the district resulting in heavy arrival of vegetables, farmers say.

Similarly there is also reasonable increase in the arrival of onion from Maharashtra. This has led to the fall in price of onion from Rs. 28 a kg last week to Rs. 16 a kg on Thursday.

***Price falls to Rs. 18 a kg from Rs. 26 a kg***

### **'Infuse interest among youth in agriculture'**

Agriculture scientist S. Ayyappan has stressed the need to infuse confidence and interest in agriculture among the youths.

Speaking here on Friday, Dr. Ayyappan said that youths were losing interest in agriculture and migrating towards other sectors.

He added that they were yet to return to the agriculture sector due to various factors including misconceptions that it was an unskilled profession which had

little returns. Dr. Ayyappan said there was a need to change this and said that to become a successful farmer at least 50 skills were required.

He noted with concern that Indian villages were fast becoming old-age homes with the youngsters deserting the villages in search of green pastures in the cities and there was urgent need for overcoming the challenges faced by the agriculture and make it a viable profession.

“We need to change the agriculture practices and adopt water conservation and management practices more effectively to counter the effects of the climate change,” he said. Dr. Ayyappan said that the farmers should be extended quality seeds and 3.50 crore quintals of seeds required by the farmers every year can be met jointly by the private and public enterprises.

There should not be any hurdles for the farmers to get the nutrients and fertilizers without any difficulty. The farmers should be encouraged to adopt mechanisation of agricultural practices to overcome shortage of agriculture labour. He said by pre and post harvest losses could be reduced by introducing effective mechanism of primary processing at the village-level.

Along with conventional agriculture, the farmers should be encouraged to take up ancillary agricultural practices like beekeeping, mushroom cultivation, floriculture and animal husbandry to shore up the income in agriculture.

***Farmers urged to adopt mechanised practices to overcome shortages***

### **Pilot project to reform milk societies**

*Computerised procurement, online payment will be introduced in villages*



As many as 50 villages in Bidar will be taken up in the first phase of the project.— File Photo

The district administration and the Kalaburgi-Bidar Milk Producers' Societies Union Ltd. will start a pilot project to reform milk societies in villages by introducing computerised milk procurement and online payment.

Tasks like measuring the volume and quality testing of milk and keeping a daily count of the milk procured in the village by evening will be automated.

Society secretaries will be trained in handling them and milk producers and farm workers will undergo an orientation session.

As many as 50 villages in the eight taluks will be taken up in the first phase. The district administration will fund the project.

“These units are being set up in villages that did not have milk producers cooperative societies. We have completed formation of societies in 27 villages. We will install the procurement machines here soon,” Deputy Commissioner Anurag Tewari said.

“A study by the Animal Husbandry Department has shown that regular payment is the most important motivator for farmers. Other factors were transparency in the procurement process that measured milk properly and money was paid according to the quality submitted. We clubbed these three things and decided to change the way a society functions,” Mr Tewari said.

Money will be transferred electronically into the bank accounts of farmers. “Our focus will be to encourage women farmers open bank accounts, keep animals and supply milk to the societies,” the DC said.

Farmers and societies will get incentives to perform. Farmers who produce the most will be rewarded with loans to buy cows and buffaloes and technical assistance. Societies that collect the highest amount of milk will get regular technology upgrades and awards. Schemes and funds of various departments will be dovetailed to provide incentives to farmers and societies, according to him.

Union president Revanasiddappa Patil said that this was the first step towards making Bidar a milk surplus district.

This will not only help poor families fight malnutrition by feeding their children with milk produced at home, but also help them get a regular source of income by selling their produce, he said.

“We want to exploit our proximity to large markets like Hyderabad and Secunderabad. We are entering into a phase where we will supply quality milk to such large markets,” Mr. Patil said.

Kalaburgi-Bidar Milk Producers’ Societies Union Ltd. gets around 60,000 litres per day, out of which 70 per cent is procured is from Bidar alone.

However the potential yield of Bidar, home to the native Deoni breed cattle, is estimated to be at least three lakh litres per day.

The milk shed scheme introduced by the State government aims at doubling procurement in the next few years and help farmers by setting up milk processing and by product making plants in the district.

### **Dairy farming**

The Chelannur block panchayat on Friday launched its satellite dairy farming project with a total investment of Rs.36 lakh. The project is being implemented with the cooperation of around 1,500 dairy farmers.

— Staff Reporter

### **Amend Seeds Act: farmers**

The Tamil Nadu Farmers' Association that is not affiliated to any political party has urged the Centre to amend the Seeds Act, 1966.

In a resolution passed at the monthly meeting recently, the farmers said that officials in charge of checking the quality of seeds sold at shops were unable to do so as shopkeepers escaped inspection citing loopholes in the law.

The Association said that the law at present exempted inspection of shops that stocked less than 3 kg. The prescription was reasonable as at the time of enactment of the law in 1966, seeds were being sold in kilograms.

But now that the shops sold seeds in packets of a gram or 10 g, the law should be amended to include for inspection all shops selling seeds.

This way, even those shops that stocked less than three kg would be brought under the ambit of seed inspection officers, it reasoned.

It also urged the Centre to enact a law to nullify or reverse the decision of the Supreme Court in the GAIL pipeline case.

Citing the law Parliament passed in the Shah Bano case, it said that the government should table a Bill in Parliament to empower the State Governments to order that the gas pipeline should not be buried on farmers' lands.

And, the government should draft the bill so that it had retrospective effect.

The Association extended its support to those who staged fast seeking implementation of Avinashi Athikadavu scheme.

*The law at present exempted inspection of shops that stocked less than 3 kg*

### **Marathwada drought: ministers visit region, face farmers' ire**

*Water levels in dams have touched 6% of their capacity*



A banana farm destroyed by drought in Jalna district—File Photo

Be it a minister or the Leader of Opposition, all political bigwigs in the state are currently on tour in drought-hit Marathwada and Vidarbha to inspect relief works.

With the Budget Session set to get underway in a week's time and water levels in Marathwada going further down, all cabinet and state ministers spent their Friday in the region, taking stock. With ministers assigned a tehsil each in Osmanabad, Beed and Latur districts — the worst affected — a few inevitably had to face farmers' ire over delay in relief work.

Even as the ministers toured the affected region, reports coming in said a farmer committed suicide in Beed. In Nashik district's Chandwad taluka, a 36-year-old farmer committed suicide allegedly because he was unable to repay a debt, police said on Friday.

On his visit to Nilanga in Latur, Chief Minister Devendra Fadnavis spoke of his government's achievements in water conservation. He said, "I know farmers are suffering because of water scarcity since the last four years, and this is my third visit here. Today, every minister is visiting a tehsil to review the progress of our schemes. We are suffering because of nature as well as past mistakes. The water problem has never been addressed in a planned way," he said, not missing an opportunity to take potshots at the previous Congress-NCP government.

The decision to send all ministers to drought-hit areas was taken two weeks ago, after water levels in dams in Marathwada reached 9 per cent of their capacity. While 2015 was the year that saw the highest number of farmer suicides, the trend continued in 2016 with around hundred farmers ending their lives in the first two months.

The government's effort is seen as an attempt to nullify the Opposition's aggressive mode, and the latter is likely to corner the government over these issues.

On March 4, when the state cabinet was touring Marathwada, dam water levels had already touched 6 per cent of capacity. On March 4 last year, the level was 17 per cent, while it was 36 per cent in 2014.

"Farmers have first right to the state's treasury. We will not hesitate to spend on schemes to provide water for farming," said Finance Minister Sudhir Munguntiwari in Beed district.

Leader of Opposition in the state assembly Radhakrishna Vikhe-Patil, who was in Vidarbha on Friday, accused the government of neglecting farmers. "This government is busy with Make in India events and spending money on them, but it has no money to spend on farmers. The Union Budget did not even mention rising farmer suicides in the state. People are angry and ministers visiting different tehsils are experiencing it first-hand," he said.

Meanwhile in New Delhi, Union agriculture minister Radha Mohan Singh told the Rajya Sabha in a written reply that as many as 3,228 farmers committed suicide in Maharashtra last year, the highest in the last 14 years. "Of these 3,228 cases, 1,841 are eligible for ex gratia, while 903 cases aren't," he said, adding 484 cases are pending inquiry.

The maximum number of suicide cases were reported from Aurangabad at 1,130, followed by Amravati (1,179), Nashik (4,591), Nagpur (362), Pune (96), and Konkan (2), he said.

***2015 saw the highest number of farmer suicides, with 3,228 such instances recorded***

### **Free rice scheme will hit PDS: ration dealers**

The All India Ration Dealers' Association has alleged that the Oommen Chandy government's move to give free rice to 20 lakh below the poverty line (BPL) families from April 1 will throw the public distribution system (PDS) into a disarray.

The decision, taken at the fag end of the government's tenure with an eye on the upcoming polls, will deprive a large number of families of their share of rice, association general secretary Babychen Mukkadan and State president K.R. Aravindakshan said at a press conference here on Friday.

They said the 20 lakh families had been selected based on a 18-year-old list. Of these, 6 lakh were ineligible. As many as 16 lakh families which were included in the list by panchayats following a survey and had been given ration cards with a seal of 'BPL family' were waiting to be included in the list, they claimed.

They alleged that the government was keeping mum on how much funds were required for the scheme and where the money would come from.

They alleged that the State had been criticised in Parliament by Prime Minister Narendra Modi for failing to implement the food security Act. The State should have been the first to implement it for it was K.V. Thomas who had introduced it in Parliament and got the Act passed.



### **Will ensure fodder, power, water for Marathwada: CM Devendra Fadnavis**

Fadnavis said the government will procure fodder from Konkan region to ensure there was no fodder shortage in drought-hit districts of Marathwada, Vidarbha, parts of North and Western Maharashtra.



Maharashtra Chief Minister Devendra Fadnavis

Assuring farmers that they were top priority of the government, Chief Minister Devendra Fadnavis has said that steps would be taken to ensure there is no shortage of fodder, power and water supply through tankers in drought-hit districts of Marathwada, which Fadnavis and his cabinet ministers toured on Friday to take stock of the situation ahead of summer.

Following a three-hour meeting with cabinet ministers and top officials, Fadnavis announced a Rs 561-crore package for strengthening sustained power supply in eight districts of Marathwada to help the agriculture sector. He said the government will procure fodder from Konkan region to ensure there was no fodder shortage in drought-hit districts of Marathwada, Vidarbha, parts of North and Western Maharashtra.

While new fodder camps would be set up, deployment of water tankers would be scaled up, he said. At present there are 1,799 tankers supplying water in Marathwada. Asserting that farmers were the highest priority of his government, he said that of the Rs 1,500 crore provided for immediate disbursement to farmers who suffered crop losses, Rs 1,000 crore has been spent and the remaining Rs 500 crore relief would be given soon.

He said, "The restructuring of loans will help us to bring a large number of farmers in the loan bracket despite losses incurred in kharif." This is also the first time the government is extending a huge power package for farmers and so far the entire power package in the state has never exceeded Rs 300 to 400 crore, he added. Fadnavis allocated funds for several dams and irrigation works including Matota (24 crore) and Bhandarwadi (Rs 37 crore). The Latur corporation was given Rs 5 crore.

### **Nature's bounty: How this man from the Valley turned his love for flowers into his livelihood**

Firdous grows 70,000 different varieties of tulips in his ten poly houses and other varieties of flowers like Lilium, Carnation, Gerbera, and Gladiolus.

For eight years, Firdous Ahmad Mir would skip his classes to visit the famous Kashmiri gardens. He would happily do it for his love for floriculture.

His love affair with it continued for a long time until one day he decided to act on it. As soon as he graduated, he turned a big stretch of land at his native village at Kanipora, Kulgam into a flower garden and within years, Firdous expanded his venture from three to ten kanals of land. At the same time, he



started attending floriculture workshops around the country to brush up on his skills.

Today, Firdous grows 70,000 different varieties of tulips – which he had brought from Holland- in his ten poly houses and other varieties of flowers like Lilium, Carnation, Gerbera, and Gladiolus.



Tulips in full bloom. (Photo: PTI)

Registered with the state Floriculture department, this 30 year-old floriculturist supplies flowers and seeds to prominent departments of the state and just last year he supplied tulips to Srinagar’s botanical garden. Now, along with a group of young men, he’s also started his own marketing team and delivers flowers to different parts of the country.

“I am currently sending flowers to Ludhiana, Delhi, Chandigarh and Jammu. After I realised it’s growing demand I also started marketing it in south India,” he says.

Firdous showed us a long list of clients across the country adding, “More clients are approaching me.”

Firdous’s mentor is his uncle Muhammad Sultan Bhat- who has been growing flowers since the past three decades, but when it comes to running the business, he is one step ahead. We say so, because other than marketing and cultivating flowers, he’s into landscaping work.

When asked about how did he get into landscaping, Firdous says, “After getting registered with the floriculture department in 2009, I undertook a landscaping project at the Srinagar Airport where I groomed my skills.”

People started recognising his work and the rest is history.

It will be an understatement to say that Firdous is at the right place at the right time as currently, floriculture has a major potential in the valley. The boom started in the 90s, 1996 to be precise when an area of 80 hectares for flower cultivation catapulted to a whopping 350 hectares. However, like everything else, there is still room for improvement.

Firdous says that the government can do more by providing subsidy on air freight as flowers cannot be transported through road pertaining to the high temperature outside the state.

“We have a huge market outside the state but it becomes difficult to transport flowers due to the high air fare. A kilo of flowers costs us Rs 28. If government provides us a subsidy on the fare, our business can develop manifold. This might even influence people to get into the business,” said Firdous.

Firdous wants more and more people to take up floriculture and also has a message for the youths of the Valley.

“The youths of the Valley should not run after government jobs. Instead, they should explore other options. I want to expand my business, and provide job to many more unemployed youths of Kashmir.”

**hindustantimes**

**India will be among worst hit by climate change: Oxford University**



A shepherd walks on the bed of the dried-up Osman Sagar Lake on the outskirts of Hyderabad on Friday. The estimate based on a modelling study said climate change could kill more than 500,000 adults worldwide in 2050. (AFP)

India will be among the worst hit countries and face a large number of deaths due to changes in diets and bodyweight from reduced crop productivity, according to a new study on climate change led by the University of Oxford.

The estimate based on a modelling study said climate change could kill more than 500,000 adults worldwide in 2050. The study from the university's Martin Future of Food programme was published on Thursday in the medical journal *The Lancet*.

The countries that are likely to be worst affected are low- income and middle-income countries, mainly those in the Western Pacific region (264,000 additional deaths) and Southeast Asia (164,000), with almost three-quarters of all climate-related deaths expected to occur in China (248,000) and India (136,000).

The research is considered the strongest evidence yet that climate change could have damaging consequences for food production and health worldwide, a university statement said.

The study led by Marco Springmann is the first of its kind to assess the impact of climate change on diet composition and bodyweight. The study estimates the number of deaths these two factors will cause in 2050 in 155 countries, the statement added.

The study also said unless action is taken to reduce global emissions, climate change could cut the projected improvement in food availability by about a third by 2050, and lead to average per-person reductions in food availability of 3.2% (99 kcal per day), in fruit and vegetable intake of 4.0% (14.9g per day), and red meat consumption of 0.7% (0.5g per day).

“We found that in 2050, these changes could be responsible for around 529,000 extra deaths. We looked at the health effects of changes in agricultural production that are likely to result from climate change and found that even modest reductions in the availability of food per person could lead to changes in the energy content and composition of diets, and these changes will have major consequences for health,” Springmann said.

Cutting emissions could have substantial health benefits, reducing the number of climate-related deaths by 29%-71% depending on the strength of the interventions, the study added.

“Adaptation efforts need to be scaled up rapidly. Public health programmes aimed at preventing and treating diet- and weight-related risk factors, such as

increasing fruit and vegetable intake, must be strengthened as a matter of priority to help mitigate climate-related health effects,” Springmann said.

## THE HINDU BusinessLine

### **Kerala’s first vannamei hatchery becomes operational**



In a major advancement to the State’s shrimp farming sector, the first vannamei shrimp hatchery has started operations at Kerala University of Fisheries and Ocean Studies.

The hatchery of *Litopeneus vannamei*, an exotic and most sought shrimp variety, is in high demand in overseas. In the initial stage, the hatchery will function as the Nauplius Rearing centre which has a capacity of producing two million seeds a year.

At present, the vannamei farming in the State is on a slow growth on account of the difficulties in getting seeds of the species. “With the establishment of the hatchery in KUFOS, the farming of this species shrimp will get a major boost,” the State Fisheries Minister K Babu said at the inaugural function.

The setting up of the hatchery will popularise vannamei farming, thereby boosting the shrimp exports from Kerala, he said, adding that the Fisheries Department would also popularise the farming model of the white-leg exotic shrimp developed by the Varsity in all the shrimp farms.

### **Destruction of poppy seed crop to push up prices**

Sharp decline in the poppy seed output in the country coupled with Court stays on imports is likely to make a squeeze in availability of the material pushing up the prices.

Following severe damage to the crops due to unfavourable weather in Rajasthan and Madhya Pradesh, nearly 95 per cent of the crop in these States has been reportedly ordered to be destroyed by the Narcotics Control Board, Gwalior, according to market sources.

As a result, an estimated 2,000 tonnes of poppy seeds would be destroyed in the coming days, they told *BusinessLine*.

Meanwhile, they said, courts in India have stayed imports from Turkey, China and Czech following petitions filed in the courts.

Some of the importers have alleged that “big cartels who have bought cargo in Turkey from 6 months were trying to procure permits under fictitious names and methods. So, matter is in the courts and high level probe is on”.

Small traders and importers have urged the Union government to formulate a fair policy so that the trade would move on smoothly.

Under the new policy, minimum 30 days time is given for applying for permit and after that issuance of permit would take another 15 days. Thus, “we see permits to be issued in June after court cases are settled”.

India is a net importer of this commodity and the annual imports are estimated at around 35,000 tonnes, mainly from Turkey.

### **Harrisons Malayalam’s Chundale tea factory bags safety award**

Chundale Tea factory of Harrisons Malayalam Ltd in the Wayanad region has bagged the prestigious Kerala State Safety Award in category IV - Small factories (below 100 workers).

Three of the tea factories namely Achoor, Chundale and Surianalle of HML were shortlisted for this award and after rigorous assessment; Chundale Factory emerged as the clear winner. Chundale factory manufactures the highest quality orthodox teas from the Wynad Region.

The award reinforces the commitment of the organisation towards the health, safety, welfare and well being of its employees and families, said Cherian M George Vice President-HR, Harrisons Malayalam Ltd said in a statement.

## **Former NDDDB chief Amrita Patel gets Mahindra lifetime achievement award**

Charutar Arogya Mandal Chairman Dr Amrita Patel was, on Friday, decorated with the Mahindra Samridhi India Agri Lifetime Achievement Awar-Krishi Shiromani Samman in New Delhi.

Dr Patel is a former Chairman of National Dairy Development Board (NDDDB). She served as its chief from 1998 to 2014.

Union Agriculture Minister Radha Mohan Singh conferred the prestigious award on her at a function in the national capital, “for her purposeful contribution that made a difference in the field of agriculture to increase productivity and rural prosperity.”

Dr Patel had played a pivotal role in the implementation of Operation Flood, the largest developmental programme in the world . The programme helped to promote, finance and deliver a variety of supporting services to a national cooperative dairy structure that transformed the lives of millions of marginalised and small farmers and milk producers.

The Mahindra Samridhi India Agri Awards were instituted by Mahindra & Mahindra Ltd, Farm Equipment Sector .The lifetime achievement award is presented to a renowned personality in the agri space whose contribution is recognized at national and international levels. The awards are a platform to share best practices in agriculture for a larger community benefit.

Receiving the award, Dr Patel said that true development involves creating institutional structures to enable rural producers to become a part of the economic mainstream. While dairy cooperatives have some remarkable achievements to their credit, new economic challenges and opportunities necessitate new institutional forms. One such form is that of a "Producer Company", an enterprise combining the institutional and ideological strengths of cooperatives with flexibility and autonomy available with a company.

“I will be ever grateful to the former Prime Minister Atal Bihari Vajpayeeji for the encouragement and support that we received from him in translating this concept into a reality through an amendment to the Companies Act.”

## Import duty on raw cashew to hit processing sector



The Karnataka Cashew Manufacturers' Association (KCMA) has said that the 5 per cent customs duty on raw cashew nut in the Budget will sound a death knell for the cashew processing industry in the country.

In a letter to the Union Finance Minister Arun Jaitely, KCMA has sought the immediate roll back of this duty.

B Rahul Kamath, President of KCMA, said that the levy of 5 per cent basic customs duty on the CIF (cost, insurance and freight) value on the imported raw cashew nuts will translate to ₹30 a kg of finished goods. Along with this, it will also attract a special additional duty of 4 per cent and an education cess of 3 per cent. This will mean an additional increase in cost of the product by ₹25/kg.

### **Processors hit**

This additional cost cannot be passed on to consumers as the product is price-sensitive and will hit consumption directly, he said.

Stating that a majority of the 4,000 cashew processing units in 14 States of the country are in micro, small and medium scale sectors, Kamath said most of them are located in the rural belt. The industry is currently employing over 4 lakh women across India and another 4 lakh indirectly in the farms.

The cashew industry in the country has the annual processing capacity of 16 lakh tonnes of cashew.

## Domestic production

He said that farmers in the country produce around 6 lakh tonnes of raw cashew, and the domestic production is able to meet the processing demand for four months. The rest has to be made good by imports.

He said the shortfall in the Indian raw cashew nuts have already pushed the international prices to disparity for India and additional costs to the extent of the duty and other charges will seal the fate of small domestic processors. This will result in the closure of many tiny and small industries, he said.

## Turmeric pales as arrivals rise



Spot turmeric prices at Erode markets decreased as the arrival of turmeric bags were on the rise.

“9,000 bags arrived for sale and the traders quoted ₹10,000 a quintal for hybrid turmeric. For the local varieties, they quoted ₹9,600,” said RKV Ravishankar, President, Erode Turmeric Merchants Association.

He said the price of turmeric is decreased in all the turmeric sale centres in India, but only in Erode some quality turmeric arrived for sale. At the Erode Turmeric Merchants Association, the finger turmeric was sold at ₹7,853-10,029 a quintal; the root variety at ₹7,514-9,400. Of the 3,533 bags offered, 1,725



## Firm futures heat up edible oils



Edible oils prices went up by ₹5-7 per 10 kg tracking firm overseas markets. Liberty's rates: palmolein ₹535, super palmolein ₹554 and soyabean refined oil ₹605. Ruchi traded palmolein for ₹532, soyabean refined oil ₹597, sunflower refined oil ₹745.

Allana was quoting palmolein at ₹535, soya refined oil ₹610 and sunflower refined ₹755. In Saurashtra/Rajkot, groundnut oil *telia* tin was at ₹1,410 (1,410) and loose (10 kg) at ₹900 (890).

BCE spot rates (₹/10 kg): groundnut oil 925 (920), soya ref. 598 (593), sunflower exp. ref. 670 (670), sunflower ref. 743 (745), rapeseed ref. oil 750 (745), rapeseed exp. ref. 720 (715), cottonseed ref. oil 600 (595) and palmolein 527 (520).

## SEBI advisory panel to evolve new price pooling system for commodities



Sub-committee to be formed to get feedback from mandi traders, market participants

The high-level SEBI advisory committee headed by Ramesh Chand, Member, NITI Aayog, has decided to revamp the price pooling mechanism of commodity exchanges and evolve a scientific method to arrive at a price to settle future contracts.

The decision was taken at the first meeting of the committee held here on Friday with participation of representatives from SEBI, three commodity exchange officials, MMTC, WDRA, Nabard, Agricultural and Processed Food Products Export Development Authority, Commission for Agricultural Costs & Prices, besides members from IIM-Bengaluru and IIM-Ahmedabad.

While the agri-commodities traded on the futures platform are of specific quality, the commodities available in spot markets are heterogeneous and are subject to seasonality. Thus, pooling these prices from the spot market to settle futures contract is a misnomer, felt the members.

A sub-committee is being formed to study the issue and suggest a solution after seeking feedback from the *mandi* traders and market participants, sources said.

### **Poor correlation**

Many researches done on the price pooling mechanism have indicated poor correlation between spot and future prices of commodities. Recently, NCDEX has to suspend trading in castorseed contract as the price on the futures platform was holding strong even while it was falling steadily in the spot market as a few traders were hoarding stocks in the exchange to manipulate prices. The development led SEBI to ban four members and 12 traders from dealing with online commodity markets.

On the possibility of allowing new products, it was emphasised that any product that is being introduced should help farmers in price discovery and should not be another investment option for traders and investors.

The committee also felt that it is not the right time to allow banks, mutual fund and financial institutions to invest in the market. Rather, it was decided to deepen the market by encouraging corporate hedgers by building confidence in the market.

### **Warehouse issues**

The warehouse issues including guarantee on availability, quantity and quality of goods, besides the process of assaying was also discussed. The long pending issue of delisting illiquid contracts and review of trading in narrow commodities was also flagged off. The committee also discussed measures to increase market

participation which has been dragging for last few months due to sharp falling commodity prices, sources said.

## **Business Standard**

### **Unseasonal rain may damage wheat, mustard**

Vice-president at Skymet Weather Services said heavy showers can have a bigger impact in north



*Labourers try to protect bags of wheat from rain after heavy rains at Grain Market in Patiala **Picture by PTI***

Weather offices prediction of unseasonal rain and hail are causing incessant anguish to farmers in north and central India.

India Meteorological Department (IMD) has predicted isolated incidents of rain, squall and mild thunderstorms over parts of Punjab, Haryana, western Uttar Pradesh and Madhya Pradesh. It has already been intermittently raining in parts of Maharashtra for some days and in Rajasthan.

"In the next three days, rain and hailstorms cannot be ruled out from parts of Punjab, Haryana, Delhi and west UP. Thereafter, the trough will shift towards eastern India," G P Sharma, vice-president at Skymet Weather Services, said. "In Maharashtra, the intensity of rain will go down in the next few days."

He said mild hail at isolated places in the north might not have a big impact on the standing wheat and mustard crop but if the showers are heavy, it might.

"The rains would reappear from March 11 and last till March 14," Sharma added.

In 2015, the standing crop on 19 million hectares was damaged due to unseasonal rain and hail on almost all parts of north and central India. These started around the same time—the end of February to early March. Though, it did not have much of an impact on the final output, it did aggravate distress in rural India.

P K Joshi, South Asia director at the International Food Policy Research Institute, said mild showers could in fact be good for the standing wheat crop in north and central India. However, if accompanied by heavy hailstorm, as had happened last year, it might damage the crop.

As per second advance estimate of food grain production, India is expected to produce around 94 million tonnes of wheat in the current rabi season, about seven mt more than last year. Mustard production is expected at 6.83 mt, marginally more than last year.

Unseasonal rain may damage wheat, mustard

**12 lakh hectares of cultivable land lying unused: Govt**

A draft land leasing Bill was discussed with states In a recent meeting in the NITI Aayog



As much as 12 lakh hectares of cultivable land is lying unused in the country and one of the reasons for this is the existence of different leasing laws in different states, government said in Rajya Sabha today.

Agriculture Minister Radha Mohan Singh said this after many Opposition members expressed fears of "corporatisation" of agriculture after a recent meeting in NITI Aayog where a draft land leasing Bill was discussed with states.

During Question Hour, Congress member Shantaram Naik asked what was the need felt by the government to hold such a meeting and whether the government wanted to introduce private companies in development of agricultural lands.

Similar apprehensions were expressed by some other members, including D Raja of the CPI.

In his reply, the agriculture minister said that while people had harboured "doubts" over the meeting, in reality it had "nothing to do with the industry".

Singh said that land and its management fell within the jurisdiction of states and the role of Centre was only advisory in nature.

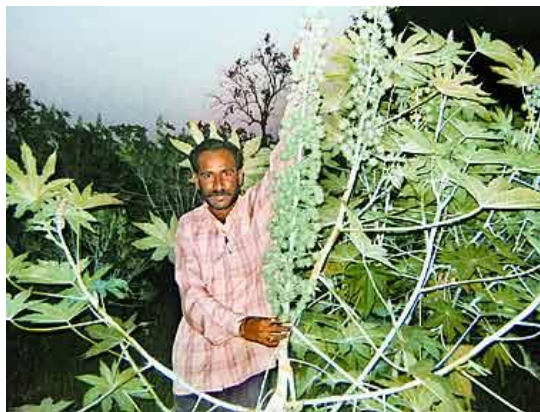
Referring to the meeting held in Niti Aayog, he said it was only continuation of the work initiated during UPA government's rule, when Congress leader Jairam Ramesh, who was present in the House, was a minister.

Singh said there were fears among people that if they gave up their land on lease, they could lose its ownership over the years. This, he said, was because different laws related to leasing of land were in practice in various states.

Maintaining that 12 lakh hectares of land was not under cultivation, Singh said that Niti Aayog has constituted an experts' group on September 7, 2015, to prepare a draft model agricultural land leasing Bill in consultation with state governments and the Centre was only playing the role of an advisor.

### **Junagadh varsity advises farmers to hold cumin, castor for few months**

Report claims both crops have good prospects of exports during April and May



Junagadh Agriculture University (JAU) has advised farmers to hold the stocks of cumin and castor crops for the next few months to get better returns on their produce.

According to JAU report, both the crops have good prospects of exports during

April and May which may increase the prices of cumin and castor in the coming days.

"If export opportunities continue to remain good, there are some chances that prices may go up in future. It is advisable for farmers to hold the crops for a while which may give good returns," said M G Dhandhalya, associate research scientist at department of agricultural economics, JAU.

Quoting second advance estimates, JAU report suggested castor production in the country likely to about 1.72 million tonnes for the year 2015-16.

In current financial year exports might be around 500,000 tonnes. The domestic consumption and derivatives exports of castor oil are expected about 200,000 tonnes. This requires crushing of about 1.66 million tonnes of castor seeds, which indicates that current year's production is almost at par with oil demand.

However, the castor prices, which was ruling around Rs 740 per 20 kg in December 2015 in various markets of Gujarat, has decreased to Rs 610 per 20 kg in February 2016 due to higher production estimates and weak global sentiments.

Dhandhalya said, "Due to some trading problems in futures contracts, report of higher production and economic crisis in china and some EU countries pulled down castor price in recent time. Hence, instead of selling castor below Rs 700 per 20 kg, farmers may wait for revival of the market."

Based on the econometric analysis, JAU study revealed that the prices of castor during March to May 2016 may remain in the range of Rs 640-720 per 20 kg.

Similarly for cumin, JAU has guided farmers to sell it after April this year as higher export opportunities and domestic demand may increase the price of the commodity.

"Cumin production in India expected to be about 375,000 tonnes is just sufficient to meet the domestic and current export demand. Last year's ending stock is lower; therefore cumin price likely to remain firm in ensuing season," said Dhandhalya.

Cumin prices which was ruling around Rs 2,000 per 20 kg in May 2014 in Gujarat, increased to about Rs 3,100 May 2015 and remained stable around Rs 2,900 till December 2015 and currently it is ruling around Rs 2,500 per 20 kg. The econometric analysis revealed that the prices of cumin during March to April may remain in the range of Rs 2,600 to 2,850 per 20 kg.

## **Nothing in budget for fisheries or aquaculture sector: Kamlesh Gupta**

Finance Minister Arun Jaitley in the budget has completely ignored fisheries & aquaculture sector, proposing incentives and investments, only for agriculture.

Fisheries & aquaculture is an important sector for food production in the country. The sector provides nutritional security to nation's food basket, contributes to agro exports and provides employment to 14 million people. Indian fisheries and aquaculture contributes to 6.3 percent of the global fish production, 1.1 percent of the GDP and 5.15 percent of the agriculture GDP. Seafood exports from India have increased by five times during the past 15 years to touch \$ 6.5 billion, making India the fourth largest global seafood exporter.

However, the Finance Minister Arun Jaitley in the budget has completely ignored fisheries & aquaculture sector, proposing incentives and investments, only for agriculture. This is highly disappointing for the Indian fisheries industry.

The centre should note that, aquaculture face challenges similar to agriculture - be it the climate, quantity and quality of harvest or price, often determined by market forces.

In the budget, for agriculture, the Finance Minister has proposed schemes and benefits, such as bringing more land under farm irrigation plan, new crop insurance scheme, increased agriculture credit, increased spending on animal husbandry, cattle and livestock breeding and introduction of Krishi Kalyan Benefit tax, for the benefit of farmers. However, I do not think, farmers involved in aquaculture or fisheries, would be benefited in any way with the aforesaid schemes.

There has not been a mention of 'blue revolution' in this year's budget, a subject dear to Prime Minister Modi.

Today, fisheries or aquaculture do not enjoy benefits of agriculture, even though the sectors come under the purview of Department of Animal Husbandry, Dairying and Fisheries (DADF), which is a department in the Ministry of Agriculture. This needs to be corrected.



# THE TIMES OF INDIA

## **Farmers from drought-hit zones to tour Israel for lessons in agriculture**

BAI: The state agriculture department has drafted an ambitious plan for a week-long visit of 300-odd farmers from drought-prone districts to Israel in the last week of March to study how the farmers have made steady progress and become financially sound by using state-of-the-art technology.

A senior bureaucrat told **TOI** that agriculture and revenue minister Eknath Khadse has made it clear that the process to select farmers must be completely transparent and most farmers should be from drought-prone districts of the state.

"No doubt, there has been huge delay, since we have to select farmers and grant final approval before March 31, but we are still hopeful that we will complete the exercise before the stipulated date," he said.

Elaborating on the scheme, the bureaucrat said if a farmer is selected for the Israel tour, he has to pay Rs 50,000, the state government pays Rs 5,000 for each farmer, the Israel administration takes care of hospitality. "Applications were invited from all districts. More than 1,200 farmers have shown interest. We will select 300 to 325 farmers. It will be a transparent process," he said.

The bureaucrat said during the winter session of the state legislature, a proposal of Rs 1.5 crore for the Israel visit was approved by both houses. Since the proposal was approved, the agriculture department should have initiated the process to select farmers, however, owing to procedural wrangle, it was delayed by over three months.

The bureaucrat said that in the past, the agriculture department had sponsored a few farmers and in view of the encouraging results, it was decided to depute more farmers. "We found that those farmers, who visited Israel, undertook new techniques in farming and their results were encouraging. We are sure if the farmers in drought-prone areas take up the new methods, there will be marked improvement in the situation," he said.

In Israel, the bureaucrat said, it was found that farmers have adopted new technology in fertilizers, processing of agriculture produce, minimum use of water, new marketing strategies and new equipment. "Our farmers will visit a few farms, agriculture laboratories and interact with farmers to know for themselves as to how they have become self-sufficient and economically sound," he said.



## **City to host flower show this weekend**

GURGAON: This weekend is going to be a flowery affair for Gurgaon, as the city gears up for a flower show with multiple varieties on display and sale. The show, organised by Huda, will be held at Leisure Valley Park.

The two-day event, which will have around 50 stalls showcasing horticultural products such as manure, saplings, seeds etc., will be inaugurated by MLA Umesh Agarwal and the concluding speech will be delivered by PWD minister Rao Narbir Singh. "So far, more than 1500 companies, schools, colleges and NGOs have registered for the event," said VK Narela, executive engineer, Huda's horticulture department.

He said on the first day, there will be multiple competitions on flower pot decorations, garden decor etc.. "To ensure the people visiting the flower show are entertained, we have arranged for various cultural programmes as well as singing performances and comedy shows," said Narela.

Apart from this, there will be magic shows, swings, baby show, rangoli making competition, etc. for kids.

# THE ECONOMIC TIMES

## **Rain and hailstorm forecast over Northern wheat belt**



Traders said that they were watching the situation and expected price increases in case the weather turns bad.

NEW DELHI: The weather office has forecast rain accompanied by thunder squalls with hail over the wheat, corn and mustard belt of northwest and central India in the next 24 hours.

This could come as a blow to farmers who have started harvesting or whose crops are at the maturing stage. Traders said that they were watching the situation and expected price increases in case the weather turns bad.

The current crop of wheat, mustard and corn is of superior quality compared with that of the previous year. "Weather forecasts still show the possibility of further hailstorms which can impact the standing wheat crop of Madhya Pradesh in some areas," said Rajiv Yadav, vice-president, grains and oilseed, Noble Agri. "The pipelines of millers are dry and any delay in harvest due to rain and with possible damage to quality can lead to a rise in prices in the near future." Companies said weather ..

### **India needs a new green revolution: Anand Mahindra**



A majority of Indian population is dependent on agriculture for livelihood, Mahindra added.

NEW DELHI: Cautioning against getting carried away by "glamorous sectors like IT and e-commerce", Mahindra Group Chairman Anand Mahindra today said India needs a new green revolution as income from agriculture is declining.

"There has been particularly two years of bad monsoon. Income from agriculture is declining and we are so happy with glamorous sectors like IT and e-commerce that we easily forget that agriculture is true heartbeat of this nation," he said while speaking at Mahindra Samriddhi India Agri Awards 2015 here this evening.

A majority of Indian population is dependent on agriculture for livelihood, Mahindra added.

This year the government has projected a growth of agriculture and allied sector

at 1.1 per cent. The sector is under distress and cases of farmer suicides have been reported in many states.

Lamenting the poor attitude towards agriculture in India, Mahindra said, "We have the world's fourth largest agriculture sector. It employs over 50 per cent of our population and constitutes 14 per cent of our GDP yet six decades after independence agriculture is still not seen as a desirable occupation."

Stressing on the need to give a fillip to the sector, he said, "We have made a lot of progress in agriculture, have benefited from green revolution but we need a new green revolution. I have confidence that this will happen because now we have tools like technology to make it possible."

### **Despite adverse weather condition, Bengal mango belt expecting high level of crop**



Unprecedented low level of rainfall in Eastern India might have added many wrinkles on the forehead of all in the agri arena there.

SILIGURI: Unprecedented low level of rainfall in Eastern India might have added many wrinkles on the forehead of all in the agri arena there. But Mango farmers are finding it as highly favourable and expecting high output in 2016, the year earlier expected to be a low yielding one, traditionally known as 'Off year.'

As per Indian meteorological record, Entire Eastern zone comprising Bihar, Jharkhand, West Bengal or NE region has witnessed 20% to 59% lower than normal rainfall during 1st Jan to 24th Feb period. For sub Himalayan West Bengal region, the downfall recorded even lower at 60%- 90%. Relative humidity has also dipped even lower than 45% at some places.

"It may be bad for other crops. But we find it favourable for Mango," said Mr. U. Saha, President Maldaha Mango Merchants Association. Maldaha and

adjoining districts in West Bengal form one of the largest mango yielding regions of the country producing around 5 lakh metric ton or near 5% of India's national yield. Eventually, local economy of the whole industrially deprived region is highly dependent on Mango.

"Flowering of mango takes place till first week of March and low rainfall during this period is good for the soft flowers to remain attached to inflorescence," said Prof. A. Chaudhury, DEAN, North Bengal Agriculture University. In addition, "Low humidity at this season has also kept attack of common disease like Anthracnose under controllable limit," said experts.

"Though as per traditional trend, after high yielding 'On Year' 2015, this 2016 was expected to be a low yielding 'Off Year.' But it is likely to break the tradition and become 'On Year' with an output of around 3 lakh Metric Ton from Maldaha alone," said Mr. Saha.

However, "The situation can take a serious negative turn if it does not rain after mid-March. Because too low humidity in soil and air can seriously retard transformation of flowers into baby fruits. In addition, this juicy fruit demands high level of water supply for proper growth. The farmers must remain prepared," said Prof. Chaudhury giving a caution.