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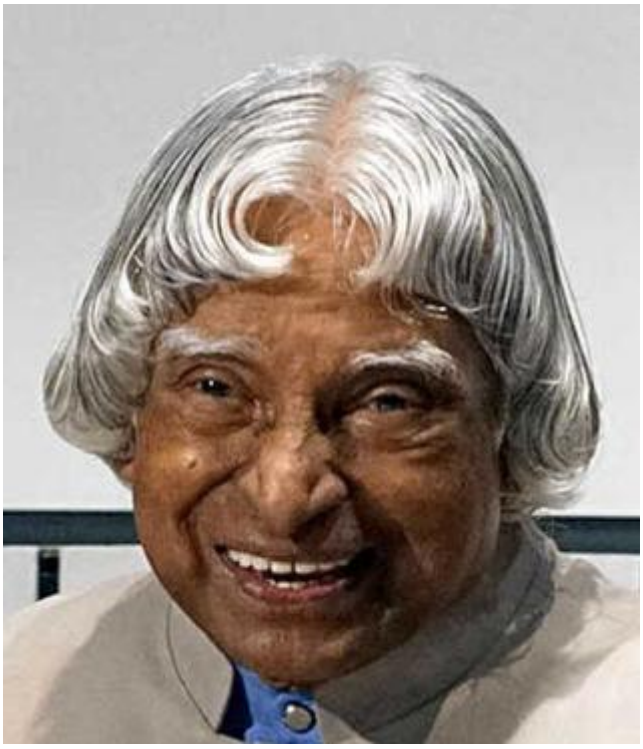
THE HINDU

Agri-based tech must for prosperity: Kalam



Former president APJ Abdul Kalam said here that the country can prosper only when rural technology is advanced and batted for the setting up of more agriculture-based technical institutes in these areas.

Advancement in rural technology is required for making the country progress and prosper, the Bharat Ratna awardee said at a private institute here last evening.

Speaking to the students of RV Institute of Technology, Kalam exhorted them to adopt a spirit of service towards the nation and a sense of creativity in their approach.

Kalam during his visit to the college appreciated the models prepared by the students and asked them to respect their teachers who, he said, were their best guides.

On the occasion, the former president also inaugurated a women cell at the college and launched ‘Go girl, grow girl’ campaign, under which meritorious female students will get four-year free education.

Kalam also visited Dayawati Dharam Vira Public School at Bijnor later and inaugurated the school magazine ‘Udaan.’PTI

Farmers hopeful as TB dam records good inflow

With good rainfall in the catchment areas of Malnad region in Shivamogga district, the inflow into the Tungabhadra reservoir in Hosapete has been rising. During the past 48 hours, the dam has received around 10 tmcft of water, bringing smiles on the faces of farmers in the command areas with the hope that water would be released into the canals very soon.

On Wednesday, the inflow at the dam was the highest during this year. The dam received water at a rate of 70,746 cusecs taking the reservoir level to 1,618.24 ft against a full level of 1,633 ft. In all, 53.554 tmcft of water has been augmented.

A meeting of the Irrigation Consultative Committee has been convened at Bengaluru on Thursday to decide the dates of water release into the left bank and also on the right bank low level and high level canals.

Tungabhadra dam, an inter-State project, is a lifeline catering to the drinking water and irrigation needs of a once-chronically drought-prone area — Ballari, Koppal and Raichur in the State and Anantapur, Kadapa and Kurnool districts in undivided Andhra Pradesh.

Students take part in ‘FarmDost’ initiative

Nearly 14,000 students from 18 schools in Coimbatore have taken home a small kit that includes seed packets, instruction booklet, and a packet of coco peat. They will grow spinach and okra or cluster beans at home, talk to three farmers, and learn more about the critical role of the farmers in sustaining agriculture.

This is part of "Be a FarmDost" initiative launched by Tractors and Farm Equipment Limited's (TAFE) in the State.

TAFE launched it in Chennai in April to create awareness among the public and extended it to the schools in June.

Over 30,000 students, studying in classes IV to XII, at the schools in Tiruchi, Madurai and Coimbatore have been covered under the project so far and it will be launched in Chennai next. The company aims to reach 60,000 students in the State this year.

Aim

Sunitha Subramaniyan, senior deputy general manager – Corporate Communications of TAFE, told *The Hindu* that the aim of the initiative is to recognise farmers. The programme had two contests - one is best FarmDost school contest and another is "ThankYouFarmers" contest for the students. The top three schools in each city that had high percentage of participation will receive the award in the contest for schools.

Students will post pictures of their farming activity regularly onwww.FarmDost.comwebsite. They will also meet the farmers, talk to them and thank them in innovative ways.

As part of the school activity, a plot is prepared and seeds sown in the schools where the initiative is launched. TAFE plans to extend the initiative across the country.

Cotton prices flare up at auction

Cotton growers in the Kumbakonam region of Thanjavur district, where cotton cultivation is fast catching up, found increased returns for their produce at the auction conducted by the Regulated Market Committee here on Wednesday.

The mean average price at the auction was Rs. 4,250 per quintal, up by around Rs. 200 over that of the previous auction.

Agriculture Department officials say cotton is raised on around 350 hectares of land in Kumbakonam sub-division, on 150 hectares of land in Papanasam sub-division, and on 315 hectares of land in Tiruvidaimarudur sub-division.

The Market Committee holds cotton auction on Wednesdays in Kumbakonam, on Thursdays at Tirupanandal, and on Fridays at Papanasam for the benefit of the region's cotton growers.

Over 400 cotton growers brought their 1,300 quintal produce for auction at the Kumbakonam shandy on Wednesday in which traders from Tirupur, Erode, Coimbatore, Villupuram, and Nagapattinam districts participated and quoted their best prices in indirect bids.

Special Officer of the Market Committee Kaliyaraj and Superintendent Priya Malini opened the bids and announced the prices. While the maximum price was quoted at Rs. 4,399 a quintal, the minimum quote was at Rs. 4,100 for the same quantum. The mean average price was Rs. 4,250 per quintal, the officials said.

Farmers say there was an increase of Rs. 200 a quintal this time over that of the previous auction and hoped that their produce would fetch better returns in the days to come.

Variety is the spice of life

A loss of dietary diversity during the past 50 years could be a contributing factor to the rise in obesity, Type 2 diabetes, gastrointestinal problems and other diseases, said Mark Heiman, vice president and chief scientific officer at MicroBiome Therapeutics, a US-based biotechnology company.

Heiman said our gut bacteria needs a diverse diet to function optimally.

However, current agricultural practices as well as climate change have contributed to a loss of that diversity, with about 75 percent of the world's population consuming only five animal species and 12 plant species. Of those 12, rice, maize and wheat contribute 60 percent of all the calories, he said. In his research, Heiman found people with pre-diabetes and Type 2 diabetes had a different **microbiome**makeup than people without those health conditions.IANS

Connected to the soil

You must have noticed the long hose that passes through narrow alleys in residential areas in Kakkanad. Follow it and you find that it opens to a field, while the other end is attached to a 2,000-litre tank. The hose carries organic slurry that falls directly to crop basins. This is Paul Mathew's ingenious innovation to remove waste from his farm and also help him earn some money.

"The slurry contains cow urine, sediments of cow dung (in small quantity), bio gas waste and water drained from a fish pond. This organic slurry, stored in a tank is carried in a van from my farm and reaches where the customer wants it to be used. The pump fitted in the tank drains out the slurry in an hour. Since the slurry is mainly cow urine there is no foul smell nor is there any sort of inconvenience for the people living in the locality," says Mathew whose farm is located at Thuthiyoor, Kakkanad.

"We have so far pumped five tanks of slurry to our farm house in the past few months. While the slurry is being pumped out we also let our water to the field thereby diluting the organic manure" says Fr. Nelson Job, who is in charge of the Holy Family Monastery, Perumpadeppu, West Kochi. The monastery cultivates plantain, yams, tapioca, spinach, beans etc. in their farm.

The pumping of slurry in this way also helps reduce cost of labour and saves a lot of time, adds Fr. Job.

"I undertake transportation of the slurry when there are usually two or three farmers in one area. Otherwise it does not work out economically for me as I need to employ two or three workers for the job," says Mathew. He charges Rs. 2,000 for a tank of slurry and confesses that he has been earning something to the tune of Rs. 50,000 per month.

Maya S. Nair, Additional Director, Agriculture, feels that this is a very effective and efficient method of disposing farm waste. "It is beneficial to the society as the waste does not accumulate and become a breeding place for disease-inducing insects. Farmers are assured of good manure for their crops. And above all Mathew has found a way to make money out of farm waste."

Mathew's farm has a clean, hygienic byre. He has 51 pedigree cows of which 31 yield milk. The cow dung and urine are passed to separate tanks constructed away from the byre. While the cow dung is dried and sold to farmers, the urine is kept underground and pumped to a tank placed in a van.

His indigenous brand of milk, 'Unarvu', which comes in packets, is much-sought after among the residents in Kakkanad. The milking is done by labourers mostly from Bengal and Odisha who live with their families in his farm.

The fodder for the cattle is cultivated in the farm itself. It is done through hydroponics, a method of growing plants using mineral nutrient solutions, in water, without soil. Here organic seeds like maize, sesame, leguminous plants like peas and green gram are soaked in water and kept in trays in a specially designed arbour.

The sprouted plants are used as fodder for the livestock. These can be also replanted. In the hydroponics shed, water sprinkling is done with a computer-aided timer machine.

"Compared to the fodder available in the market, hydroponic plants tend to yield more quality and quantity of milk," opines Priya Joseph, Dairy Extension Officer, Edappally.

Mathew also rears different varieties of animals and birds in his farm. "People come here for guinea pigs perhaps to be used for experiments," he says.

A pisciculturist, Mathew has a wide variety of fishes in a large pond. This is apart from the home aquarium that has some expensive varieties like Arowana, a fresh water fish that costs around Rs. 30,000. In these days of consumerism when people are dependant on market produce Mathew and his farm are a shining example of how one can be self-sufficient.

Bengal Govt. to pump Rs.4,200 crore for agriculture power supply

In a bid to improve power transmission for the irrigation sector, the West Bengal government will pump in Rs.4,200 crore over the next two years for a dedicated feeder line.

"The Cabinet has approved a separate dedicated power line for irrigation, which will be rolled out at a cost of Rs.4,200 crore and the same will be initiated in a month's time and completed over the next two years," Power minister Manish Gupta said at the State secretariat after the meeting.

It was part of Sech Bandhu project, which entails to install 46,000 new pump sets with electric connectivity.

The project would not only help improve farm productivity with better power supply, but would help eradicate low voltage issues in rural Bengal, Mr. Gupta said.

Co-funded by the Centre with 60 per cent of cost, the project would entail providing dedicated separate feeder lines for irrigation purposes for farmers, he said.

Infrastructure development for the project would include installation of 80 new 33/11kV sub-stations, 1.14 lakh distribution transformers and upgradation of some 50 to 60 existing transformers, the Minister said adding, 90 per cent of rural Bengal had been electrified and rest would be completed by March 2016.

The State government reiterated that it would not go for forcible land acquisition required for the power infrastructure, Mr. Gupta added. - PTI

46,000 new pump sets with electric connectivity to be installed

Vertical dairies are the future, says milk union chief

Krishna District Milk Producers' Mutually Aided Co-operative Union Limited Managing Director T. Babu Rao on Wednesday said that vertical dairies are the future of the industry and fully-automated units would replace manually-run ones.

Speaking to *The Hindu,* he said updated dairies were a must for a rapidly moving economy. He branded the Vijayawada milk plant as a semi-manual one.

"Most of the works are handled by human beings. We are planning a mega dairy on a five acre site adjacent to the plant which will follow the modern rules of dairy infrastructure. We are also planning to come up with a new block in the existing site to meet future demand."

He said the country's best milk factories at Anand in Gujarat, which handle over 10 lakh litres of milk, were run by just a dozen employees in a state-of-the-art environment. Listing future plans, Mr. Rao said bulk milk collection and chilling points would come up in Nagayatippa, Challapalli, Achampeta, Garigiparru, Ethulagudem, Kanchikacherla, Jonnalagadda, Chatrai, Vissannapeta and Kothagudem in the Krishna district.He also felt there was need for formation cattle farms on the lines of poultry farms for the benefit of farmers as Andhra Pradesh was likely to witness rapid urbanisation.

“The new capital city at Amaravati is bound to disturb agriculture and animal husbandry. There is a possibility of domestic cattle getting drastically reduced for want of fodder. The State government should offer subsidy and encourage cattle farms to keep livestock,” he felt.

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‘India should increase production of value-added cotton products’

India, which is the largest producer of cotton and the second largest consumer and exporter of the fibre, has the potential to add value to the fibre and export the products, Prem Malik, chairman of the Confederation of Indian Textile Industry (CITI), said here on Wednesday.

He was speaking at the inaugural of a “Natural Fibre Conclave” organised by CITI.

Mr. Malik said that while India produces significant quantities of cotton and silk, production of vegetable fibre is largely restricted to jute. The country continued to export close to 25 per cent of the cotton produced in the country to China, Bangladesh, Korea and Vietnam.

However, it also continued to import some varieties of cotton. Production of cotton should match the demand trends. Apparel exports have been growing and with the inherent strength in fibres and value-chain, the other segments are also expected to see revival of growth soon.

The most important policy intervention required by the industry now is related to Technology Upgradation Fund Scheme. The scheme does not have funds available now for new investments. The allocation has to be increased for the scheme and all pending issues related to the scheme should be resolved at the earliest, he said.

B.K. Krishnaraj Vanavarayar, former chairman of the organisation, urged the textile and clothing sector to take serious efforts and invest in the best technologies available globally and scale-up production facilities. This process is almost complete in spinning.

However, weaving and garment segments still have majority of the production from the unorganised sector.

The process of consolidation of garment and fabric industries should start at the unit-level.

The Government should ensure that investors in labour-intensive industries feel confident about the security of their capital in large factories, he said.

Sessions and discussions were held on innovative approaches for textile business, natural fibres – opportunities and threats, and value addition in natural fibres. It covered the natural fibres – cotton, silk, and coir.

Mettur level crosses 90 feet

Brightening the prospects of opening the Stanley Reservoir at Mettur for irrigation, the water level crossed the 90-foot mark here at 7 am on Wednesday.

Public Works Department officials said the inflow was 25,103 cusecs at 8 am on Wednesday, but dropped to 22,990 cusecs at 4 pm.

The storage improved from 52.537 tmcft in the morning to 53.225 in the evening against the capacity of 93.470 tmcft. Discharge of water for drinking purpose was 2,000 cusecs.

However, officials said the inflow started to recede and it is expected to continue in the coming days.

On June 5, Chief Minister Jayalalithaa said a minimum storage of 90 feet was required for opening the dam for irrigation.

Expectations high

With the level crossing 90 feet, farmers expect the dam to be opened in the last week of this month. Last year, the level crossed the 100-foot mark on August 10 and water was let in the Cauvery for samba irrigation, benefitting 15.58 lakh acres in 12 districts.

‘Encourage farmers raising conventional crops’

Agriculture Department officials should encourage farmers cultivating conventional and drought-resistant crops such as ‘thinai’, ‘kuthiraivali’, ‘saamai’ and other minor millets, said speakers at a meeting of farmers held at Mela Pazhuvanji village near here on Wednesday.

They said that these conventional crops were ideal for the drought-prone district in the last four years.

S. Ganesh, District Collector, who interacted with a cross-section of farmers, ascertained the growth of ‘kuthiravali’ and advised the Agriculture Department officials to encourage small and marginal farmers through subsidy-based programmes for covering a larger area under the conventional crops.

Referring to the large presence of sparrows in the field, he said that apart from ensuring judicious use of irrigation waters, the conventional crops would promote bio-diversity in the district. A. Adhappan, founder of the Rose Trust, which convened the meeting, said the

‘kuthiraivali’ crop needed just four to six times of watering all through its duration that ranged between 80 and 90 days.

G.S. Dhanapathy, a progressive farmer, said the farmers would earn considerable profit by raising these conventional crops.

A couple of farmers Rajam and Vijaya, who had raised the crop, expressed their confidence of registering adequate returns on the crop. They had got the quality seeds from the Agriculture Department depot at Annavasal, they said.

‘Set up agricultural board to stop farmer suicides’

B.J. Vijayakumar, who conducted an inter-disciplinary study to look into the anthropological dimensions of farmers’ suicide in Karnataka during 2004-05 as part of his research for doctorate degree from the University of Mysore, has urged the government to implement his recommendations. He claimed that his recommendations would go a long way in alleviating the problems of the farmers and prevent them from committing suicide.

Mr. Vijaykumar, in his Ph.D. thesis, suggested setting up of a separate agricultural board to protect the interests of farmers. The proposed board should be set up on the lines of the Coffee Board, he said, adding that the proposed board should educate farmers about scientific cultivation, help the government fix minimum power charges for IP sets and suggest minimum support price for each crop. The board should also help farmers get a fair price for agricultural produce, and the board should ensure that farmers are not exploited by middlemen or commission agents.

He had also suggested that loan facilities should also be extended to those cultivating on leased land. Mr. Vijayakumar had visited over 108 villages of north Karnataka to study the ground realities leading to farmers’ suicide. He had suggested that all crops must be insured so that farmers would not sustain losses even in case of failure of crops owing to different reasons.

Government should also regulate the transactions of moneylenders, probably by a legislation, so that farmers do not fall into debt trap. The thesis also laid emphasis on the need to protect the ecosystem by planting different varieties of saplings round-the-year according to the climatic and soil conditions. Mr. Vijayakumar’s yet another suggestion was to establish farmers’ welfare fund to help farmers in distress, and to provide old-age pension to all farmers. He said that he had submitted a copy of his study and recommendations to both the Union and State government in the year 2006 but unfortunately both the governments failed to implement his recommendations. He urged the State government to implement his recommendations at least now to prevent the farmer suicides. Mr. Vijaykumar incidentally is engaged in farming activities in Mysuru district.

‘The board should help government stop exploitation of farmers by middlemen’

No more harvests where the Seed will be sown

erdant banana plantations dot the metal road leading to Lingayapalem village that's in the eye of the storm over the Seed Capital of Amaravati. You see farmers loading bananas onto tractors for despatch to far markets and plantain leaves to eateries in Vijayawada and Guntur.

This is the last crop before Amaravati will start engulfing the village and the mood is not happy.

As one drives into the village square, a group of men sit huddled under a thatched roof playing cards. "We have nothing to do after giving away our land to the capital. This is how we while away our time," says one of them. When the sun sets, there's liquor and then they go home.

As recently as a month ago, there was some cheer and some pride that the seed of Amaravati will sprout in the fertile soils of Lingayapalem, Uddandrayunipalem and Tallayapalem villages. The bigger farmers of these villages took the lead and agreed to participate in the Land Pooling Scheme for the capital. Seeing the resolve of the government, the smaller farmers fell in line.

But then, they were under the impression that even if their land is taken for the capital, they would stay put in the villages, and watch Amaravati rise from their windows. And then came the bombshell on Monday that they may have to vacate their houses too.

"We followed the lead of the big farmers and gave our fields for the capital. But if the government wants our houses too, we will surely fight it out,'' says Vengala Reddy, a farmer.

Linagayapalem, Uddandarayunipalem and Thallayapalem lie along an east-west axis, just 2 km from the Krishna. The three villages have about 1,700 families, half of them belonging to backward class and scheduled caste communities. While the larger land owners surrendered to the LPS and moved to the cities, the small and marginal farmers stayed behind on the assurance that they don't have to move.

Lingayapalem has 1,000 acres of patta land. All but 120 acres have been pledged to the LPS. Now, their owners say they will hold out until they are given a guarantee on the compensation package.

Farmer Anamolu Purnachandra Rao is one of them. He sold off two acres of his land for Rs. 2 crore and has one and a half acre left.

He is not budging from it until he is assured that the compensation package of a developed plot will be right here and nowhere else.

We have nothing to do after giving away our land to the capital

Poor price worries tapioca farmers

The Salem region has the highest productivity of tapioca in the world. Tapioca is industrially processed into starch and sago and Tamil Nadu accounted for 90 per cent of the India's production of the two commodities. .

Tapioca industry in Salem region has grown manifold with more than 1.25 tapioca growers. Come the tapioca harvest season every year. It is time when farmers raise hue and cry on the poor price being offered for the crop by the sago manufacturing units functioning in Salem and Namakkal districts. The tapioca harvesting season has already commenced in Pachamalai, Kollimalai, Kumanthurai areas. The tapioca is at present offered a paltry price of Rs. 4,000 per tonne, which is the lowest ever in the recent years. Last year, during the harvest period the price remained at Rs. 7,000 per tonne. On various occasions, the price ruled between Rs. 10,000 and Rs. 11,000.

The farmers have already launched agitations.

The Tamizhaga Vivasayigal Sangam staged a demonstration in front of the collectorate in the city in which the tapioca farmers of both Salem and Namakkal districts participated.

K. Sundaram, general secretary of the Sangam, said that thousands of tapioca farmers are eagerly waiting to harvest the crop. But the poor price has shocked them to the core. The price of tapioca never remained consistent and only the sago manufacturing units fix it.

The price of Rs. 4,000 per tonne was very much on the lower side compared to the production cost. Various farmers' associations allege that it was mainly due to the syndicate formed by the sago units which was responsible for the poor price of tapioca. Since tapioca is

a perishable crop, the farmers cannot protect the crop for a long and have to be always at the mercy of the sago units, they complained.

Mr. Sundaram pleaded with the State Government to intervene and fix reasonable price for the tapioca and protect the livelihood of the farmers. He suggested that government could supply 'payasam' made of sago and provide the same to the students attached to the noon meal centres and anganwadis. This will help in creating demand, which in turn will lead for good price.

The presence of sugar factories in both government and private sector has enabled cane farmers getting good price. The government should take steps for setting up a sago manufacturing unit under the public sector concept, he said.

The State Government about 15 years ago, on persistent demand, decided to set up a sago manufacturing unit in Pappanayakkanpalayam. It even identified five acres of land. However, the project did not materialise. The government should revive the project, he demanded.

Rain brings cheer to farmers

Adilabad district received good, rather evenly distributed, rainfall on Tuesday night, but the situation does not seem to have improved. Farmers, however, were a happy lot as the rains will save the standing crops.

The hill streams were in spate with the rainfall which was heavy in the hilly areas. While Kadem mandal recorded the highest of about 11 cm of rainfall, Utnoor, Jainoor, Sirpur (U), Adilabad, Ichoda, Boath and Kerameri received rainfall of over 5 cm.

Cloudy weather prevailed in the district on Wednesday too which has raised hopes of farmers. Also, there was no hindrance to the proceedings of the Pushkaralu. As of now, the district has recorded normal rainfall receiving 200 cm as against 210 cm. The Talamadugu, Bellampalli and Wankidi mandals have received rainfall in excess of the average rainfall.

Strawberry and cream for tired skin

Getting a natural tan makes the skin look beautiful, but what to do when sun-exposed parts are way too darker than the covered areas? To give a glowing effect to tired skin, the trick lies in applying a milk mask along with strawberries and taking anti-oxidant and vitamin C tablets, experts say.

Kiran Lohia, a dermatologist here, says it is important to avoid going out in the sun between 10 a.m. and 4 p.m., and if this is impossible, then always walk out after thoroughly covering the exposed areas.

“Start off by adding two ripe mashed strawberries into a spoon of fresh honey. Apply it as a face pack until it dries and wash off to reveal fairer and softer skin. Strawberry will act as a perfect tanning removal agent while the honey will help soothe the skin,” Bharti Taneja, director of Alps Group, says. — IANS

DECCAN Chronicle

Showers cool city, but don’t fill up reservoirs

Chennai: Here is some good news for water-starved Chennaiites. The city and its suburbs are likely to get more rains for the next few days. Though the city on Wednesday witnessed sudden spells of rain, there was no encouraging rainfall in the catchment areas of reservoirs that supply drinking water to the city.

Officials at the Regional Meteorological Centre have forecast that the city will remain cloudy throughout the day on Thursday. Thunderstorm may occur along with rain in Chennai during evening and afternoon. The office has forecast isolated rainfall in the interior parts of Tamil Nadu.On Wednesday evening, office-goers returning home were caught unawares due to the moderate rainfall of about 28.4 mm.

Thambi Narayanan, deputy director-general of the meteorological department, Chennai, said on Wednesday Chennai witnessed convectional rainfall. “It was formed when sea breeze came in the afternoon from sea to land and southwest monsoon flowing from west to east and both met at one point, which led to forced convection.”

However despite the heavy downpour, the maximum temperature recorded at Nungambakkam was 36.7 mm and the minimum was 28.3 mm with a humidity of about 87 per cent. Similarly, the maximum temperature at Meenambakkam was 36.0 degree C and the minimum temperature was 23.3 degree C. A rainfall of 17.8 mm with a humidity of about 90 percent was recorded.

Meanwhile astro meteorologist S..Ramachandran predicted that heavy downpour would occur till July 31. “ We are going to have excellent rainfall throughout this month. July 31 to August 5 again will be a dull period. Cyclone or depression will occur at the Bay of Bengal from August 8 to 18 August,” he said. According to CMWSSB, the storage in the city lake levels continued to be parched. The storage of water level at the reservoirs was recorded at 928 mcft as against last year’s 2,088.

The Indian EXPRESS

Saving water: More crop per drop

Jarandi gets barely 750 millimetres of annual rainfall, well below the national average of 1,175 mm. Yet, this village in Soegaon taluka of Maharashtra's Aurangabad district has the unique distinction of almost its entire cultivable area being under drip irrigation.

That perhaps makes it a model worth looking at, just when the current government has launched the Pradhan Mantri Krishi Sinchai Yojana that aims at delivering water to every field (Har Khet Ko Pani) with a Rs 50,000 crore budget outlay over five years. "Drip irrigation coverage extends to over 3,500 acres out of our total agricultural area of around 4,000 acres.

That includes 3,000 acres under cotton and 500 acres under horticultural crops like banana, pomegranate, mosambi (sweet lime), haldi (turmeric) and ginger. Only the balance 500 acre area, where jowar, maize and other coarse grains are grown, is rainfed," says Rajendra Patil, a 125-acre farmer of Jarandi.

In drip irrigation, the water pumped out from a well is first sent through sand separators and media/screen filters to remove silt and impurities such as algae or dead plant matter. This filtered water is, then, applied to the crop via a network of mainline and sub-mainline pipes, valves (that turn on or off the water flow) and smaller diameter polytubes or 'laterals', which have pre-installed emitters at spaces corresponding with the placement of each plant.

These ensure delivery of water directly to each plant's root zone (where it is really required) and at discharge rates as low as one litre per hour. Drip irrigation systems also have provision for 'fertigation' — application of fertiliser, in liquefied form from a separate tank, along with the water.

"Drip irrigation works well in cotton, where only one litre of water per plant per day (pppd) is needed for the first 40 days. Taking a plant population of 5,000 per acre, it comes to 5,000 litres or operating a 5-horsepower motor power for just 15 minutes daily," notes VB Patil, senior manager (agronomy and agriculture extension) at Jain Irrigation Systems Ltd (JISL). The irrigation requirement is higher in the subsequent stages of bud or square initiation (40-60 days: 2-3 litres pppd), flowering (60-90 days: 5-5.5 litres pppd), boll development (90-120

days: 7 litres pppd), maturation (120-150 days: 4-4.5 litres pppd) and boll bursting (150-170 days: 3 litres pppd). But even with 500 mm of monsoon rainfall, the entire 800-900 mm water need of cotton over 180 days can be comfortably met through drip irrigation. "With drip, I can irrigate 10 acres using the same quantity of water that could previously cover hardly one acre through flood irrigation," claims Rajendra Patil.

Patil has 20 open wells and two farm ponds of 40x40x8.5 metres capacity each for harvesting rainwater in his 125 acres holding. In addition, he has a well four km away at Tingapur, housing a minor dam fed by streams from the nearby Ajanta hills. Patil and 29 other farmers, who have also sunk similar wells at the dam site, lift the water from there using 5-7 hp motors and convey it through pipelines to their respective fields.

"The pipeline water is required mainly during March to mid-June before the monsoon rains. For the rest of the year, I can make do with the water from the wells and ponds in my field using drip irrigation," adds Patil. Patil and his 29 fellow farmers — who together own 1,500 acres — are relatively rich though, compared to the bulk of Jarandi's 750-odd families, who are either landless or cultivate much smaller plots. Like, for instance, Madhukar Shankar Sonawane, a two-acre Dalit cotton grower.

But he, too, has an open well for giving water to his field through drip irrigation. Sonawane was able to invest in drip irrigation in 2011, partly because of a subsidy of Rs 12,000 per acre on a system otherwise costing Rs 35,000 and also good realisations on kapas (un-ginned raw cotton). "Prices were then Rs 5,500-6,000 a quintal, as against Rs 3,900-4,000 now.

I am managing only on account of not engaging any hired labour, reducing my production costs by Rs 10,000 to Rs 35,000 per acre. Also, my yields have risen thanks to drip irrigation," he states. Most farmers in Jarandi are harvesting 17-18 quintals of kapas per acre, due to drip irrigation allowing them to take a second 'ratoon', growing from the stubbles of the main crop and yielding 5-6 quintals from fresh pickings during January-April.

This again wasn't possible with flood irrigation, which could only assure water for the main crop whose yields were also lower at 7-8 quintals per acre. Drip irrigation, apart from saving water, contributes to higher yields. The reason for it is that the water (and fertiliser) is applied only at the plant's root zone and remaining soil area gets enough air to maintain an optimum air-water-nutrient balance.

But is the Jarandi model replicable? Yes, believes JISL's Patil: "You can build a 30x30x3 metre pond for every farmer at Rs 75,000 covering costs of excavation and plastic lining material to control seepage loss. This pond, on one-fifth of an acre, can accumulate 25 lakh litres of rainwater in the monsoon. Even after percolation and evaporation losses of 10 per cent each, the balance 20 lakh litres can fulfil the cropping requirement for 5 acres using drip irrigation till the next season.

Alternatively, you could have a larger one-acre pond for 10 farmers with combined 25-30 acres holding." According to Bhavarlal Jain, chairman of the Rs 6,050-crore JISL — the world's second largest micro-irrigation company after Israel's Netafim — water harvested through building of check dams and ponds, extracted by bore/tube-wells, and delivered to crops using drip irrigation will cost five times more than that from large storage dams.

"But it is the only way to provide assured irrigation to every farm, more so when large dams take 15-20 years to build and entail huge land acquisition and community displacement costs. Ultimately, water has to be measured, metered, priced and managed along with proper crop planning, in order to cover more area and maximum number of farmers," he points out.

THE TIMES OF INDIA
Powered by Indiatimes

Onion prices shoot up 30% in just three days

NASHIK: The average wholesale onion prices at the Lasalgaon Agriculture Produce Market Committee (APMC), the country's largest wholesale onion market, have shot up by 30% in just three working days due to decline in supply as compared to demand.

The average wholesale onion price increased by 30% from Rs 1,959 a quintal on Friday (July 17) to Rs2,540 a quintal on Wednesday (July 22). In the last 13 days, prices have soared by almost 55% from Rs1,650 a quintal on July 10 to Rs 2,540 a quintal on Wednesday.

In the retail market, the good quality onions, which were sold at Rs 20 a kg around a fortnight ago, have reached Rs 30 a kg — a 50% hike.

Speaking to TOI, sources from the Lasalgaon APMC said, "At present, the onion coming in the market is the summer crop stored by farmers. The summer onions, which are harvested in March and April, have a shelf life of six to seven months and farmers prefer storing onions with an aim to get better prices later on. They bring their crop to the market as per requirement. This summer crop continues to cater to the market until arrival of the fresh kharif crop by the first week of October. But the daily arrival has declined substantially in the Lasalgaon APMC as compared to the demand, which has led to rise in prices. The daily arrival of onions, which was around 14,000 quintals a day around a fortnight ago, has declined to 6,000 quintals."

President of the Nashik District Onion Traders' Association Sohanlal Bhandari said, "The unseasonal rains and hailstorm had badly hit the summer crop in February and March. Moreover, maximum farmers sold their crops in April and May. Now, there is very limited stock available, but it difficult to predict how much stock do the farmers have. Overall, there might be 10% to 15% fluctuations in the onion prices, either upward or downward."

President of the Lasalgaon Onion Traders' Association Nandkumar Daga said, "The price trend in the next few days will depend on how farmers bring their crop to the market. Earlier, around 1,400 tractors filled with farmers would come to the APMC to sell onions. Today, the number has decreased to 400 tractors a day."

In the retail market too, the prices of good quality onions have hiked from Rs 20 a kg a fortnight ago to Rs 30. The recent rise in the wholesale market is expected to reflect in the retail market in the next two-three days. In the city retail market, good quality onions were sold at Rs 30 a kg on Wednesday.

Dinesh Thakkar, a 65-year senior citizen, said, "This has become a yearly phenomenon. Onion prices start increasing after July and August. There is a huge gap between wholesale prices and retail prices. The retail prices are higher as compared to wholesale prices. Government needs to take measures."

Meanwhile, the average onion prices at Lasalgaon were recorded at Rs 2,540 a quintal on Wednesday. The minimum and maximum prices were recorded at Rs 1,500 and Rs 2,768, respectively. Around 6,000 quintals were auctioned.

The average wholesale onion prices at Pimpalgaon APMC increased by 72% in past four working days from Rs 1,451 a quintal on Friday (July 17) to Rs 2,500 on Wednesday (July 22). The minimum and maximum prices were recorded at Rs 1,500 and Rs 2,845 a quintal, respectively and around 4,500 quintals were auctioned.

In Yeola, the average wholesale onion prices were recorded at Rs 2,350 a quintal on Wednesday, against Rs 1,950 on Friday. The minimum and maximum prices were recorded at Rs 800 and Rs 2,717 a quintal, respectively and around, 1,200 quintals were auctioned.

Don’t deduct fertiliser cost from farm loans, farmers urge cooperative banks

MADURAI: As the agriculture season starts, farmers eager for ready cash to raise seedlings and plough and fertilise lands seek loans from the primary agriculture cooperative banks (PACBs) and nationalised banks. But they are frustrated to find that the PACBs deduct the amount for fertilisers and pesticides, which are available for the farmers at the bank warehouses.

For a loan of Rs20,000 per acre of paddy, as much as Rs4,500 is cut for fertilisers and Rs1,100 for pesticides, according to farmers. During a recent farmers' grievance meeting, the farmers asked the authorities to disburse the whole amount without deductions.

"There is no point forcing farmers to buy fertilisers and pesticides we don't want," said K Devaraj of Small Farmers Association.

He said that most of the time, they didn't get the required fertilisers available in the warehouses of PACBs. "Give us the loan money and we will procure the fertilisers we need," he said.

Further, when a farmer is involved in organic farming, there is no point forcing him to get chemical fertilisers and pesticides, farmers said.

"It makes no sense to get chemical fertilisers and pesticides when an organic farmer does not need these," pointed out A V N Thiruppathi, who predominantly uses organic farming methods to cultivate paddy.

Fertilisers are generally provided by PACBs through their societies, and farmers have to claim the money deducted on pesticides by producing the bills at PACBs. They pointed out that pesticide dealers took them for a ride since they had to produce the bills.

Nationalised banks don't make such deductions on crop loans.

The cultivators also complained that the PACBs while dispensing crop loans were deducting unpaid dues of current loans. Such deduction should only be done on outstanding dues of past loans and not on the current loans farmers have taken in the last agricultural season. Joint registrar of cooperatives S R Venkatesan said the PACBs would be instructed not to deduct dues on current loans but only on outstanding loans.

When asked about the deduction of cost of pesticides and fertilisers, he said the issue would be sorted out.

PM Modi to announce slew of agricultural projects during Bihar visit

NEW DELHI: Aligning its 'Vision 2050' for agricultural growth in the country with its existing plan to bring green revolution in east India, the Centre has approved a host of measures for Bihar ahead of Prime Minister Narendra Modi's visit to the poll-bound state.

The approvals, which came from the Union cabinet on Tuesday, include creation of a central agriculture university at Pusa (Samastipur), revival of the Banana Research Centre at Goraul (Vaishali), setting up of new agriculture\horticulture\veterinary colleges in four towns and many new agriculture science centres (Krishi Vgyan Kendras) in different districts across the state.

The new colleges are expected to be set up at Saran, Aurangabad, Motihari and Madhubani, once the state government earmarks land for the purpose.

The Cabinet also approved Rs 295 crore for strengthening infrastructure of Pusa Agriculture University which would eventually be converted into a central university once a Bill to this effect is passed in Parliament. The bill is likely to be introduced during the ongoing Monsoon session.

The central university at Pusa will have six colleges, seven research institutes and eleven 'Krishi Vigyan Kendras'. The Centre will also set up state-of-the-art laboratories and deploy modern farm equipment for on-farm research.

"Apart from focusing on research and education in agriculture, the central agriculture university will also strengthen research on integrated farming techniques by promoting and enhancing diversification (of crops)," said the cabinet note.

It said the formation of the central university will provide impetus to the task of enhancing agricultural production in the entire eastern region.

The PM is expected to announce these measures during his visit to Bihar. He is scheduled to address a gathering of agriculture scientists from across the country on foundation day of the Indian Council of Agriculture Research (ICAR) in Patna on July 25. Hours after the function, he will address a rally of NDA at Muzaffarpur.

On the occasion of the ICAR's 87 foundation day, the PM is expected to launch various schemes and release the ICAR 'Vision 2050' document. The new schemes will be meant for promoting the 'lab to land' programme of the government, aimed at providing benefits of agriculture research to the farmers.

This is the first time that this leading central research institution will move out of Delhi to celebrate its foundation day. The ICAR is an autonomous organization under the Union agriculture ministry. Formerly known as Imperial Council of Agricultural Research, this body was established in July, 1929. The ICAR currently has 100 institutes. Four of these institutes are deemed universities.

Catchment areas of dams in district receive good rain

KOLHAPUR: The catchment areas of major dams in the district like Koyna, Warna and Radhanagari have received good showers so far as compared to the previous year.

As the catchment areas are located in the Sahyadri ranges, the rains have contributed to the dam water levels. However, other areas are still facing a major problem of water scarcity, chiefly because of lack of irrigation facilities and poor rain.

The Koyna dam, also known as the state's lifeline has received 743mm rain since June. Last year, this figure stood at 252mm. However, a Satara district information office report stated that the rainfall in the current season is still lagging behind by 187.4mm of its average record.

The south west monsoon's northern movement was halted by the Ashoba cyclone, which developed in the Arabian sea mid-June. This delayed the monsoon by almost a month, followed by unfavourable weather conditions on the western coast. Meanwhile, the Western

Ghats continued to experience showers during that period, while the rest of western Maharashtra remained dry.

Satara district collector Ashwin Mudgal pointed out that showers in the catchment area of Koyna dam is a good sign as it will help store more water for power generation. It will also meet the demand of drinking water for some villages and Sangli city in the downstream, Mudgal said. "We are now awaiting good showers in the eastern parts of the district, which is in dire need of rain," he added.

Sources in a power generation company of the state government said that Koyna generates around 2,000MW power for the state. Last week, the Maharashtra State Electricity Distribution Corporation issued an official statement citing the need for implementation of power cuts in western Maharashtra despite getting a good recovery. The statement has also pointed out that power generation from some thermal plants has gone down, putting pressure on the administration to undertake such measures to conserve power supply.

In Kolhapur, dams like Radhanagari and Warna play an important role for irrigation. Catchment areas are receiving good showers compared to the eastern part of the district, which is still parched. Mohan Atole, the district agriculture officer said, "Though the main crop in the district is sugarcane, which is generally planted in January, some farmers also grow paddy, groundnuts, sun flower and jowar. These farmers face problems of water scarcity. In the western part of the district, where farmers have cultivated paddy, they have started pumping out water from wells and bore wells as an alternative source," Atole said.

Maharashtra aims big on non-conventional energy

KOLHAPUR: The state government has formulated the first comprehensive policy on renewable energy and has aimed to produce 14,400 megawatt (MW) power through non-conventional sources. The district in western Maharashtra would benefit the most; considering that almost 50% of the state's potential sites for wind energy are here and the sugar mills can go for co-generation plants using bagasse.

The state has for the first time considered utilizing industrial waste to generate energy and plans to produce 7,500 MW solar energy. The state policy is in line with the Centre's goal of producing 175 gigawatt electricity using renewable energy resources by 2022.

Maharashtra is aiming to achieve the target in next five years; beginning with the current 6,700 MW installed capacity of non-conventional power projects. The Maharashtra Energy Development Agency (MEDA) believes that the policy would bring a change in the mindset of traditional energy development methods.

Industrial experts have welcomed the policy and highlighted the need for ease of doing business and speedy implementation. They also suggested the government to maximise utilization of the solar power resources considering the huge potential in the state.

"This is indeed first-of-its-kind policy consisting all the six major non-conventional energy sources. At present, we have an installed capacity of 6,700 MW and are aiming to add 14,400 MW in the next five years. The target is huge; however, it is achievable as the policy has been planed meticulously," said S A Patil, general manager of MEDA's power generation department.

For instance, since the last decade, sugar factories in the state have experienced the benefits of cogeneration plants and the agency can add 700 MW cogeneration capacity in next few months.

Patil said the focus of the policy is on increasing the solar power capacity and creating a new avenue for energy generation from industrial waste. "At certain point, we have to turn to solar and waste-to-energy projects. We believe that the state will lead the country in implementation of the non-conventional energy," he added.

Industry expects more than the policy and highlights the need effective implementation of the policy on the line of measures taken by Gujarat, Karnataka and Rajasthan.

"Any comprehensive policy on the green energy is a welcome step. If we compare Maharashtra with the other three states, we are lagging behind in implementation. Karnataka has implemented reverse metering; means your meter will run in opposite direction the moment you start using renewable energy," said Gaurav Malu, director of the Renewgreen Private Limited, Kolhapur.

He sees huge scope for developing solar and wind energy projects in the state; particularly in southern districts. "We have radiation throughout the year and still have not utilised our solar potential. Now, we have to see how the policy gets translated into reality," he added.

According to MEDA, the state's wind power potential is 5, 439 MW. The National Institute of Wind Energy has identified 40 sites in Maharashtra, where wind energy can be tapped. Six of these sites are in Kolhapur, Sangli has 7, while Satara has highest 11 sites. In total, almost 50% of the state's wind energy potential is in southern Maharashtra.

How big is solar energy?

Maharashtra government is aiming high in solar energy and looking for private industries to participate in installation of solar projects. While the government subsidiary Maharashtra Power Generation Corporation will generate 2,500 MW of the total target of 7,500 MW, the remaining projects are expected to be develop by private companies. The government is also considering allowing private companies to develop the land space available with the water resource department for the solar energy projects.

The government is boosting solar park concept in the state and has decided to provide incentives to the private players. The incentives include the land under the solar park will be considered as non-agriculture, permission to apply for abandoned land of government and no requirement of no-objection certificate from Maharashtra pollution control board.

Industrial waste on radar

To achieve the target of generating 200 MW energy from industrial waste, the government has decided to offer Rs 1 crore financial assistance for the project developer. Maharashtra Energy Development Agency will rebate the amount from its green energy fund. The policy states that industrial waste is becoming major threat to the environment and state is willing to utilise the inorganic waste in power generation. State-owned power generation and power distribution companies will assist the developer in installing the project, the policy has stated.

How does consumer benefits?

The policy could not translate the benefits to the domestic consumer and would largely ease the power tariffs of industries, claim Pratap Hogade, president of Maharashtra Electricity Consumers Association. "New and renewable energy is still much costlier to the common, small consumers. In last three years, cost of solar energy for consumer was Rs 5.22, Rs 5.28 and Rs 5.88 per unit. On the contrary the conventional energy tariffs were around Rs 3.75 per unit. Industries which consume bulk of energy would be benefited if they enter into new and renewable energy business," Hogade said. He too sceptical about the implementation of the policy and points towards earlier central government's policies which failed to translate into reality.

THE HINDU BusinessLine

Farm technology is the future, senses Fujitsu

Next time you are in the bustling Ota market in Tokyo, you might find Mandarin Oranges sweet beyond expectations, a real delight to bite into its succulent flesh.

The rich taste is not because of biotech seeds but the use of simple sensors in the orchards.

Real time farm data

The sensors inform farmers when to reduce water supply so that the trees work harder to absorb the water from the soil, thus increasing the sugar content in the oranges.

The Mandarin along with other citrus trees produce best fruits when it is sunny and the soil is dry.

With an average age of Japanese farmer being 67 years, technology giants such as Fujitsu are offering services to the farmer community based on sensors, historical weather data, cloud computing and Internet of Things.

Farmers get real-time alerts on their mobiles with actionable inputs.

In an era dominated by cheap Chinese electronic goods, Japanese tech firms are seeing agriculture technology services as the next big opportunity in the local and international market.

Upbeat on agri services

Fujitsu is planning to bring these technologies to India and APAC market.

Joseph Reger, Fujitsu's Chief Technology Officer (Europe, West Asia, India and Africa), at the recently concluded Fujitsu Forum, a tech event, told *BusinessLine* that agriculture is about human and animal actions in the field, which produces large data and information.

"Mere collection of information will not yield results. But if you add historical weather data, local agricultural practices, feed from a geo-satellites proving high-resolution pictures, Then you will give you results in terms of higher crop yields," he said.

Livestock breeding

He said that for the local farmers, female calf fetches more value in the market. Therefore, Fujitsu has developed a technology, which can alert them about the exact time for carrying out artificial insemination on a cow, resulting in a female calf.

The timing of the insemination determines the gender of the calf.

He explained that when a cow becomes sexually active, a couple of hours before that phase, her gait changes. If a pedometer (step counter) is fastened to her leg then the sensors in the pedometer send data to a server, which is working on a specific algorithm. The algorithm triggers an alert, which is sent to the farmers in real-time.

With smart Fujitsu devices, farmers are leveraging data and increasing production of crops such as cabbage by 30 per cent.

Earlier, farming decisions based on hunches led to 20-30 per cent crop losses, Takeshi Wakabayashi, Senior Director of Fujitsu Ltd, said.

Cabinet extends 3% subvention scheme on short-term crop loans

In order to ensure farmers receive short-term crop loans up to Rs. 3 lakh at seven per cent interest per annum, a proposal to extend the interest subvention scheme for banks was approved by the Cabinet Committee on Economic Affairs (CCEA) on Tuesday.

Rural and semi-urban branches of public and private sector banks, regional rural banks, cooperative banks and Nabard are covered by the continuation of the scheme while these entities will also "…provide additional interest subvention of 3 per cent per annum to those farmers who repay on time," according to an official statement.

The period of repayment stated is within one year of disbursement of the loan.

The Cabinet approved the expenditure of Rs. 18,110 crore for 2015-16 as interest subvention for 2015-16 with short-term crop loans capped at Rs. 3 lakh under the scheme.

While Nabard will receive Rs. 2,332 crore, the remaining Rs. 15,778 crore will be provided to public and private banks, RRBs and cooperative banks.

The CCEA also sanctioned Rs. 374 crore as subvention for small and marginal farmers holding Kisan Credit Cards who can avail of loans against negotiable warehouse receipts. For those affected by natural calamities, a continuation of 2 per cent subvention will be made available to banks for the first on the restructured amount.

The target for agriculture credit flow was increased to Rs. 8.5 lakh crore for 2015-16 against Rs. 8 lakh crore for the previous year.

The CCEA also approved the creation of a Central Agricultural University at Pusa in Bihar's Samastipur district. It will be undertaken by converting the State Agricultural University into a national level institution at a cost of Rs. 295 crore.

The University will have six colleges, seven research institutes and 11 Krishi Vigyan Kendras to begin with, while land will also be identified for setting up two more agricultural colleges and separate colleges for Veterinary Sciences, Horticulture and Forestry at Motihari.

Bird flu in US could help revive Indian egg exports

A short-term crisis in the poultry sector due to one of the worst bird flu outbreaks in the US could well prove to be an opportunity for Indian poultry industry. Domestic players are expecting a cascading impact of the crisis in global markets, leading to demand for its eggs in some countries.

US bird flu

The industry, which used to export 20 crore eggs a month till about six years ago, now exports only small numbers. There may not be a direct export opportunity from the US as it was contemplating to source the eggs from the European Union to meet the shortfall.

Egg prices shot up by 31 per cent in June over the previous month in the US to a record $2.57 for a dozen large eggs, Bureau of Labour Statistics data published on Friday said.

The US killed about 48 million chickens and turkeys in the six months to stop the spread of the disease.

Could the US crisis trigger demand for imports from India?

“Theoretically, yes. It should help us. But practically there are several technical issues. We can’t airlift eggs because it won’t be viable. You can’t ship them too,” Venkateshwara Hatcheries General Manager KG Anand told *BusinessLine*.

Logistics woes

“If they take it from the European Union, it would result in demand for Indian eggs in other global markets,” he said.

“There are chances that the US might source the eggs from Europe, which is nearer to it. When it happens, it would result in demand from other countries that depended on European eggs,” he pointed out.

Export market

The industry expects that impact of the losses might be reflected next year too.

The USDA pegged 2015 egg imports at 41.4 million dozen, up 32 per cent from its May forecast and 26 per cent above 2014 imports.

India, which produces 20 crore eggs a day, used to export up to 20 crore eggs a month till six years ago, mostly to the Gulf and African countries. But they have come to a naught now with the target countries ramping up their domestic production.

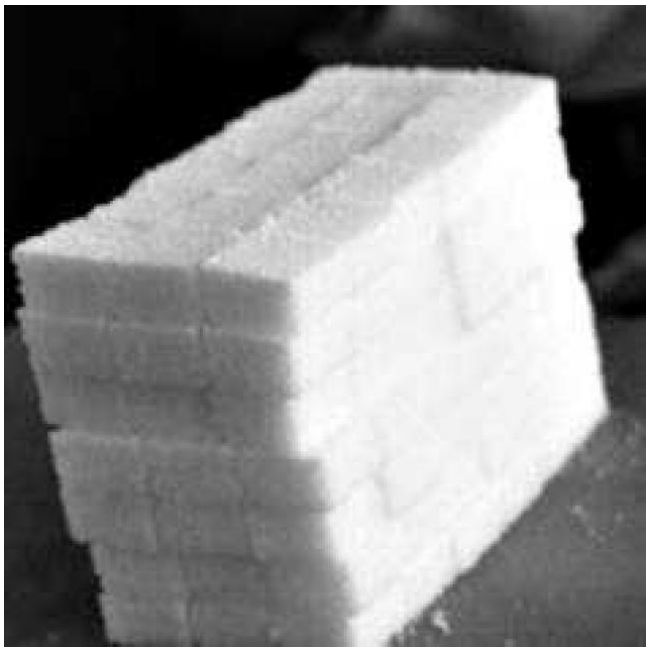
“The crisis in the US could help us revive exports. Though it is temporary in nature, this could help us re-establish the old channels,” Subba Raju, a poultry player and a member of the National Egg Coordination Committee (NECC), said.

He pegged the likely export demand at 7-8 containers (each container having five lakh eggs) to some countries because of the egg crisis in the US.

India recently lost a case at WTO that ruled in favour of removal of curbs against dumping of chicken legs from the US.

As it fears flooding of US cheap chicken legs that have good demand in institutional sales, the Indian poultry industry expects to get a pie in the high-value global exports. The shortage would help in increase in overall egg prices, benefitting the industry.

Selling pressure dissolves sugar



Sugar prices on the Vashi market dropped further by ₹10-15 a quintal at the lower side on back of continuous selling by mills amid routine demand. *Naka* and mill tender rates unchanged. Morale was steady with normal activities.

Vashi market carries about 105-110 truck loads of stocks and stockists stayed away from fresh buys.

Arrivals were at 58-59 truck loads and local dispatches were 59-60 loads. On Tuesday, 19-20 mills offered tenders and sold about 34,000-35,000 bags at ₹1,980-2,140 (1,980-2,140) for S-grade and ₹2,140-2,250 (2,140-2,250) for M-grade.

The Bombay Sugar Merchants Association's spot rates: S-grade ₹2,105-2,242 (2,115-2,240) and M-grade ₹2,252-2,502 (2,272-2,502). *Naka* delivery rates: S-grade ₹2,110-2,180 (2,110-2,180) and M-grade ₹2,210-2,350 (2,210-2,350).

Rice bran oil producers hail Govt move on bulk exports

Rice bran oil (RBO) producers believe the Cabinet decision to allow bulk exports and remove the quantitative restriction of 10,000 tonnes a year is a win-win situation both for the industry and India's paddy farmers.

While consumption of the premium edible oil is limited within the country, overseas demand has remained steady and can help the industry achieve its output potential. India accounts for two-third of global RBO production but industry officials believe domestic production can be higher.

"It is a win-win situation for both rice farmers and manufacturers. We have been asking the government to lift these restrictions and allow bulk sales since 2008. Farmers can expect better prices for their produce with exporters being able to service foreign demand," said BV Mehta, Executive Director, Solvent Extractors' Association of India.

The country produces between 900,000 tonnes and one million tonne (mt) of RBO each year out of total global output of around 1.5 mt. Mehta believes that Indian manufacturers can produce 1.5-1.6 mt of RBO a year, which currently sells for about $1,000/tonne.

“We are already far ahead of other producing countries and this move will help the industry achieve its potential. One can expect the move from consumer packs to bulk sales to benefit all involved in the trade,” he said.

RBO is produced after paddy is de-husked and the polishing process separates the rice bran, which is the oily layer between the paddy husk and the white rice. Crude RBO is then extracted from the bran and packaged after refining.

AR Sharma, Chairman-cum-Managing Director, Ricela Health Foods, which exports about 80 tonnes of RBO every month, concurred with Mehta’s assessment and expected more bulk buyers to build brands using Indian exports.

“We have already started receiving enquiries from abroad. The 10,000 tonne cap would earlier be reached in just six months and bulk buyers shied away from building a brand. This should change now,” he said, adding that the Japanese market was significant, given its status as a net importer.

Other countries that the exporters are eyeing include Thailand, China, Australia, New Zealand and the US. Long touted as a healthy alternative to traditional cooking oils such as cottonseed or sunflower oils, domestic demand remains suppressed due to its higher price.

“It is priced about ₹10-20/kg higher depending on the brand. But with higher output and more awareness, there could be a shift,” said Sharma.

Board allays fears of drop in coconut oil prices

The Coconut Development Board has sought to dispel the fears over the recent price fall in coconut oil, saying it is temporary.

The market, according to the Board, has registered a sluggish movement due to the start of monsoon and the end of the main harvesting season in Kerala. It will overcome this temporary phase and the prices will be stable with the arrival of the festival season.

The Board asked the Farmer Producers Organisations to concentrate on procurement of produces and primary processing to tap the opportunities the coming festival season would bring in.

Alleging that vested interests are creating panic in the market to crash the prices, CDB requested farmers not to sell of their produce at throw away prices fearing further price fall.

However, the Board downplayed the State Trading Corporation’s initiative to import 2,000 tonnes of coconut oil, saying it will not have much impact on the market at a time when the domestic market production crossed five lakh tonnes. The market had not witnessed any

visible changes even in the last fiscal when the government agency imported 10,000 tonnes of coconut oil.

The Board also termed "baseless" the reports that production surge in Tamil Nadu as the reasons for price fall. In fact the production in main coconut producer States such as Kerala, Karnataka, Andhra Pradesh, Tamil Nadu have decreased as compared to the previous year.

Meanwhile, the coconut oil market is ruling steady this week with prices registering a slight increase of ₹100 a quintal in Kerala touching ₹10,000 (₹9,900) and ₹9,700 in Tamil Nadu. However, copra prices remained at last week's level of ₹7,000/quintal in Kerala, and ₹6,800 in Tamil Nadu.

According to Thalath Mahmood, Director, Cochin Oil Merchants Association (COMA), corporate and upcountry buying was very limited even at these lower price levels.

Business Standard

Agri ministry: Old schemes renamed, other misleading claims

During the last week of May 2015, several central government ministries released performance report cards on their achievements during Prime Minister Narendra Modi's one year in office.

A fact-check of 14 departments and ministries reveals a string of overblown or misleading claims – alongside many new initiatives. These claims range from factually incorrect assertions (such as "only 2 km/day of road was being constructed, during 2009-14" or "production of soil-fertility boosting neem-coated urea is a fresh initiative of this government"), to selective reporting (such as "electricity generation touched a trillion-unit-mark — the highest ever" or "highest-ever electrification of railway routes"), to implied references to the launch of new programmes.

It emerges that many "new" programmes, such as "Pradhan Mantri Krishi Sinchayi Yojana, Deen Dayal Upadhyay Gram Jyoti Yojana, Deen Dayal Upadhyay Grameen Kaushalya Yojana, are repackaged versions of existing ones. This is not to say that everything is exaggerated.

Mixed with the exaggerated and overblown claims are many initiatives, such as the establishment of agriculture universities, universal social-security programmes and the biggest-ever drug-resistant survey in the world for 13 TB drugs. Over the next few days, using publicly available data — almost all of it from the government itself — Factchecker will run detailed examinations of the public claims made by the ministries.

The agriculture ministry has claimed that in the first year of Prime Minister Narendra Modi's term, it launched several new initiatives, such as soil-fertility boosting neem-coated urea and soil-health cards, Pradhan Mantri Krishi Sinchai Yojana (PMKSY), Paramparagat Krishi Vikas Yojana (PKVY) and Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGY).

Factchecker found that these are renamed versions of existing schemes.

While the government has claimed significant increase in funds for farm credit, PMKSY and PKVY, the data reveal a different story.

1. NEEM-COATED UREA: NOT A NEW IDEA

Claim: The prime minister said the government took a strategic decision to begin production of neem-coated urea to boost the falling fertility of India's over-fertilised agricultural lands.

Reality: Parliamentary data reveal that urea, along with various pesticides, has been coated with neem for 11 years.

In August 2011, the government increased the ceiling of production of *neem*-coated urea from the existing limit of 20% to 35% of total production of subsidised fertilisers. (In another statement later that year, the government also informed Parliament of state-wise consumption, along with prices, of neem-based pesticides.)

2. SOIL-HEALTH CARDS: 50 MILLION ISSUED BY 2012

Claim: The prime minister has implied that issuing "soil-health cards" is an original idea of the National Democratic Alliance (NDA) government.

Reality: More than 50 million soil-health cards had been issued to farmers across states and union territories by March 2012.

In 2008-09, the then-government had launched a National Project on Management of Soil Health and Fertility to test farm soils and encourage proper use of fertilisers to boost soil health and productivity.

State-wise Distribution Of Soil-Health Cards To Farmers	
State/UTs	**Soil health cards issued (Till March 2012) (in million)**
South Zone	
Andhra Pradesh	4.2
Karnataka	5.9
Kerala	1.9
Tamil Nadu	4
Pondicherry	0.02
A&N Island	0.003
S Zone Total	16
West Zone	
Gujarat	4.5
Madhya Pradesh	2.1

Maharashtra	2.7
Rajasthan	2.5
D&N Haveli	0.005
Chhatisgarh	0.5
Goa	0.2
W Zone Total	**12.5**
North Zone	
Haryana	1.5
Punjab	2.5
Uttarakhand	22.9
Uttar Pradesh	11.8
Himachal Pradesh	1.1
J&K	0.2
Delhi	0.01
N Zone Total	**17.3**
East Zone	
Bihar	0.8
Jharkhand	0.2
Orissa	2.1
West Bengal	0.3
E Zone Total	**3.4**

North East Zone	
Assam	0.6
Tripura	0.1
Manipur	0.2
Meghalaya	0.1
Nagaland	0.04
Arunachal Pradesh	0.2
Sikkim	0.1
Mizoram	0.1
NE Zone Total	**1.3**
Grand Total	**50.5**

3. FARM CREDIT: RECORD TARGET? REALITY IS RECORD DECREASE

Claim: Farm credit target raised to Rs 8.5 lakh crore. This was a key achievement during 2014-15.

Reality: An examination of government data since 2010-11 reveals that farm-credit targets are raised by at least Rs 1 lakh crore every year. The target for 2014-15 was fixed at Rs 8 lakh crore.

So, the target of Rs 8.5 lakh crore for 2015-16 is an increase of Rs 50,000 crore, which is the smallest increase over the past five financial years since 2010-11.

Year	Farm Credit Target (In Rs Crore)	Farm Credit Achievement (In Rs Crore)
2010-11	375,000	468,291
2011-12	4,75,000	5,11,029
2012-13	5,75,000	6,07,376

2013-14	7,00,000	7,30,766*
2014-15	8,00,000	-
2015-16	8,50,000	-

Source: NABARD/IBA/PSBs; *2013-14 figures provisional

4. RURAL ELECTRIFICATION: OLD PROJECT GETS NEW NAME

Claim: Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGY), (Deen Dayal Upadhyay Rural Electrification Programme), launched for rural electrification; a "key initiative".

Reality: DDUGJY is the new name for Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY). Or as the Government informed Parliament: "RGGVY has been subsumed [under] DDUGJY in December 2014".

As many as 112,287 villages previously without electricity were connected to the grid under RGGVYduring the 10th (2002-07) and 11th (2007-12) plans.

Under the 12th Plan, the target was to electrify 12,468 un-electrified villages, intensive electrification of 0.2 million electrified villages and free electricity to 13.3 million below poverty line (BPL) households, including those in Scheduled Caste and Scheduled Tribe areas, at a cost of Rs 23,709 crore.

5. PRADHAN MANTRI KRISHI SINCHAI YOJANA: OLD PROJECT GETS A REVAMP WITH LESS MONEY

Claim: Pradhan Mantri Krishi Sinchai Yojana (PMKSY), or Prime Minister's Irrigation Programme, launched to ensure universal access to irrigation.

Reality: PMKSY is a revamped (if not simply renamed) version of the Accelerated Irrigation Benefits Programme (AIBP), launched during the 11th Plan (2007-2012). It finances chosen unfinished irrigation projects.

A total of 297 major- and medium-irrigation projects and 16,769 minor-irrigation projects received central assistance under the AIBP till March 2014.

Out of these, 143 major and medium projects and 12,495 minor projects have been completed.

Rs 67,477 crore was given by New Delhi to various states, and a total irrigation potential of 9.4 million hectares been created.

The allocation for AIBP during the 11th Plan was more than Rs 50,000 crore; it is Rs 1,800 crore for the PMKSY over 2015-16.

6. ORGANIC FARMING: NEW NAME FOR AMALGAMATED, EXISTING PROGRAMMES

Claim: Launched Paramparagat Krishi Vikas Yojna (PKVY), Traditional Agriculture Growth Programme, to promote organic farming; every farmer to get Rs 20,000 per acre every three years.

Reality: PKVY is, again, an example of change in nomenclature; it clubs existing organic-farming schemes/programmes.

The government has been promoting organic farming through the following schemes and programmes over the last decade or so:

- National Mission for Sustainable Agriculture (NMSA)
- Mission for Integrated Development and Horticulture (MIDH)
- Rashtriya Krishi Vikas Yojana (RKVY)
- National Project on Organic Farming (NPOF)
- National Programme on Organic Production (NPOP)
- National Horticulture Mission (NHM)
- Horticulture Mission for North-East and Himalayan States (HMNEH)
- Macro-Management of Agriculture (MMA)
- National Project on Management of Soil Health and Fertility (NPMSHF)
- Schemes of Agricultural and Processed Food Development Authority (APEDA)

These schemes and programs have been under implementation through the 10th, 11th and now the 12th Plan.

Central Government Funds For Organic Farming Under Various Schemes: [Rs 859 crore between 2011-12 to 2014-15 (December)]				
States	**NMSA (CISS)* , MIDH (NHM & HMNEH) & RKVY** (In Rs Crore)**			
	2011-12	**2012-13**	**2013-14**	**2014-15**
Andaman & Nicobar	0	0	0	0.05

Andhra Pradesh	4.4	15.3	16.6	9.5
Telangana	0	0	0	5.1
Arunachal Pradesh	1.2	4.7	1.3	0.5
Assam	9.6	12.3	14.2	11.8
Bihar	101.2	0.9	0.4	0
Chhattisgarh	14.6	1.5	2.5	0
Goa	0.2	0.03	0.1	0
Gujarat	108.8	11.9	23.2	0.37
Haryana	1.9	3.7	2.5	0
Himachal Pradesh	14	11	9.1	8.6
Jammu & Kashmir	2	3.8	1.6	5.2
Jharkhand	2.2	6.3	1.6	0
Karnataka	35.4	26.4	20.2	12.5
Kerala	3.5	2.3	0.5	1.4
Madhya Pradesh	4.4	6	4.3	0
Maharashtra	0.4	0.2	5	3.1
Manipur	3.9	3.4	1	4
Meghalaya	0	0	0.5	0.1
Mizoram	0.2	0.2	0.4	0
Nagaland	2.7	4	1.5	1.4
Orissa	0.8	4.3	7.6	0
Punjab	0.8	0.2	0.5	1.1
Rajasthan	4.4	1.7	1	4.8

Sikkim	7.4	3.9	1.7	5.2
Tamil Nadu	0.2	6.9	2.3	0
Tripura	1	0.5	0.7	0.7
Uttar Pradesh	17.3	28.6	95.3	0
Uttarakhand	13.9	9.8	20	13.9
West Bengal	0	7.1	0	0.8
Total	**356.3**	**177.3**	**235.5**	**89.8**
Total from 2011-12 to 2014-15				**858.8**

THE FINANCIAL EXPRESS

Govt extends subvention scheme for current fiscal

As the country stares at a deficient monsoon for second straight year, the government has allowed the continuance of an interest subvention scheme, under which farmers get crop loans up to Rs 3 lakh at a subsidised rate of 7% per annum, in the current fiscal.

"The Cabinet has given its approval to the continuation of interest subvention to public sector banks, private sector commercial banks, regional rural banks, cooperative banks and Nabard to enable them to provide short-term crop loans of up to R3 lakh to farmers at 7% per annum during 2015-16," said a source. It has also approved an additional interest subvention of 3% per annum for those farmers who repay on time (within one year of disbursement).

The decision comes as a relief to farmers as seasonal showers trailed the benchmark long-period average by 7% up to Tuesday. Wide-scale dry spell in central and southern India is the latest in a series of miseries for farmers, who were already struggling to recover from losses due to unseasonal rains in the last rabi season and a global commodity crash.

The government has also decided to provide interest subvention to small and marginal farmers with kisan credit cards for loans against negotiable warehouse receipts after harvest at an interest rate of 7% per annum for six months. It approved the expenditure of R18,110

crore as interest subvention for the current fiscal, of which R15,778 crore could go to public sector banks.

The Cabinet, chaired by Prime Minister Narendra Modi, also agreed to provide relief to farmers affected by natural calamities, where the interest subvention of 2% will continue to be available to banks for the first year on the restructured amount, said the source.

The government has raised the target of agriculture credit to R8,50,000 crore for the current fiscal from R8,00,000 crore in 2014-15.

No restriction on rice bran oil export

The Cabinet Committee on Economic Affairs has also allowed unrestricted exports of rice bran oil and organic edible oils. Since India imports around 60% of its annual edible oil requirements, the exports of such oils had been banned since March 2008. However, the govenrment later allowed the outbound shipment of only organic edible oils with a quantitative limit of 10,000 tonne a year.

Since the consumption of both rice bran and organic oils are limited in the domestic market, unrestricted exports of these items are unlikely to affect edible oil availability, sources said. They said the move to allow smooth exports of rice bran oil is also aimed at improving realisations of farmers growing paddy — the most important kharif crop — especially when the weather office has forecast a 12% drop in monsoon shower from the benchmark average. Rice bran is an oily layer in between the paddy husk and the white rice, out of which the oil is extracted.

Domino's Pizza outlet's license suspended for 'below standard' sauce

The license of a Domino's Pizza outlet at Gajraula area on NH-24 here has been revoked by the authorities after its sauce was found to be "below standard" in lab test.

The District Food Safety authority suspended the license after the samples of tomato ketchup collected from the outlet failed to pass the lab tests.

"The decision came after samples taken from the outlet failed lab test," Amrohha Chief Food Safety Officer Anil Singh told PTI.

However, the Jubilant FoodWorks Ltd, which operates Domino's Pizza brand in India and Sri Lanka, contested the findings and described the test as "invalid."

"We are raising this case with the relevant respected authorities to check the validity of the suspension order, given this background," Jubilant FoodWorks spokesperson said.

According to the company spokesperson, the tomato ketchup snack dressing product was procured by Domino's from a third party, which goes through regular testing for food safety from government accredited labs.

"The particular sample under question, was manufactured in September 2014 and collected for testing in October 2014. It failed test on ground of "package label non-compliance", as the label was detaching from the package but "passed "on all other parameters of food safety.

"The retest was carried out in March 2015 from the same sample, which in the meantime had gone past it's 'Best before Date', which was 6 months. Thus, it was an invalid test," the spokesperson said.

According to Food Officer Singh, he had sent the samples for testing at the state food laboratory and the report came yesterday.

On the basis of the report the license of the outlet has been suspended till further decision, he said.

Singh said that the report has been sent to Amroha District Magistrate Ved Prakash. "Domino's Pizza may go and appeal to the Food Safety Commissioner Lucknow. They can not supply till the decision (on the appeal)," he said.

The development has come close on the heels of ban on sale of Maggi instant noodles after it failed to pass the lab test.

3D-printed 'smart cap' can sense spoiled milk

Scientists have developed a 3D-printed 'smart cap' that uses embedded sensors to wirelessly monitor the freshness of milk in cartons.

Researchers from the University of California's Berkeley Sensor and Actuator Center in collaboration with colleagues at Taiwan's National Chiao Tung University first used polymers and wax to enable the technology.

Polymers are attractive materials in the world of 3D printing because their flexibility allows them to be formed into a variety of shapes.

They then removed the wax, leaving hollow tubes into which liquid metal – in their experiments they used silver – was injected and then cured.

The shape and design of the metal determined the function of different electrical components. For instance, thin wires acted as resistors, and flat plates were made into capacitors.

The researchers then integrated the electronic components into a plastic milk carton cap to monitor signs of spoilage. The “smart cap” was fitted with a capacitor and an inductor to form a resonant circuit.

A quick flip of the carton allowed a bit of milk to get trapped in the cap’s capacitor gap, and the entire carton was then left unopened at room temperature (about 22 degrees Celsius) for 36 hours.

The circuit could detect the changes in electrical signals that accompany increased levels of bacteria.

The researchers periodically monitored the changes with a wireless radio-frequency probe at the start of the experiment and every 12 hours thereafter, up to 36 hours.

The property of milk changes gradually as it degrades, leading to variations in its electrical characteristics. Those changes were detected wirelessly using the ‘smart cap’, which found that the peak vibration frequency of the room-temperature milk dropped by 4.3 per cent after 36 hours.

In comparison, a carton of milk kept in refrigeration at 4 degrees Celsius saw a relatively minor 0.12 per cent shift in frequency over the same time period.

“This 3D-printing technology could eventually make electronic circuits cheap enough to be added to packaging to provide food safety alerts for consumers,” said researcher Liwei Lin, a professor of mechanical engineering and co-director of the Berkeley Sensor and Actuator Center.

“You could imagine a scenario where you can use your cellphone to check the freshness of food while it’s still on the store shelves,” Lin said.

The study was published in the journal Microsystems & Nano engineering.