THE MOR HINDU

Chief Minister offers sugarcane farmers a sweet deal

Says government is ready to take over the Nizam Sugar Factory if farmers take the responsibility of its operations

Chief Minister K. Chandrasekhar Rao has announced that the State government was prepared to take over the Nizam Sugar Factory if farmers were willing to take up operation and maintenance of the factory.

The government was prepared to spend on refurbishing the three units of the NSF before handing them over to farmers provided they were willing to take over the operations of the unit. "We made sincere efforts to take over the unit and handover a fully refurbished industry to farmers. But farmers are not willing to take the responsibility," he said.

Mr. Rao, who initially said it (taking over the NSF) was a closed chapter. He, however, said that the government was prepared to spend the amount required for taking it over and refurbishing it, if the farmers were willing to take over the operations after Congress member K. Jana Reddy said farmers were willing to take over the unit.

The Chief Minister was participating in a debate on 'modernisation of agriculture, crop loan waiver and payment of input subsidy' which came up as a short discussion in the Legislative Assembly . The Congress, however, staged a walk out from the Assembly alleging that the government had failed to give concrete assurances on the implementation of the promise made by the Chief Minister on reviving the unit. To repeated queries from the Congress about his assurance before the elections to take over the unit and revive it, the Chief Minister said the government was willing to constitute an all-party committee to work out modalities relating to the takeover, including the payment that should be made for the current owners. The all-party committee could interact with the sugarcane farmers under the NSF and convince them to revert to sugarcane cultivation for reviving the plant. He said the government was

keen on handing over the operations to farmers as the revived unit should not pose financial problems if the government took over its maintenance. He explained that several farmers who hitherto supplied cane to NSF shifted to alternative crops after the unit was handed over to private parties by the erstwhile TDP government. He explained how his government had made efforts to convince farmers to take over the industry on the lines of the sugar units operated by farmers' cooperatives in Maharashtra. A delegation of 400 farmers was sent to study the situation in Maharashtra, but it refused to accept the government's offer for taking it over. "Reopening the factory alone does not suffice. The units would need raw material and that is why the government is keen on ensuring that operation and maintenance of the industry is taken over by the farmers," he said.

Govt. ready to bear the burden of interest paid by farmers: KCR

The State government announced its intention of taking the burden of interest charged by banks from farmers despite the crop loan waiver scheme being in operation in the State.

Chief Minister K. Chandrasekhar Rao said his government was resolved to repay farmers the interest they paid to the banks. "We are willing to pay even though the fault is not ours," he said. The Chief Minister directed Finance Minister Etala Rajender and Agriculture Minister Pocharam Srinivas Reddy to review the loan waiver scheme and obtain details, bank-wise, on the interest charged from farmers so that they could be reimbursed.

During a debate in the Legislative Assembly on Wednesday, the Chief Minister, however, rejected the Opposition's demand for one time release of money for crop loan waiver.

"It is not the policy of this government to repay crop loans at one go. We have repaid three instalments so far and arrangements will be made in the next budget for payment of the remaining 25 per cent," he said.

He said the government agreed to waive crop loans at one go provided the Centre's relaxation of FRBM norms, realisation of Rs. 4,500 crore arrears of commercial taxes and the proceeds that would be mobilised through sale of lands as these would provide a cushion to the government. The government had decided to implement the loan waiver scheme in instalments keeping in view the financial aspects related to the promise and it had so far released three instalments amounting to over Rs. 12,000 crore.

In addition, the latest decision on demonetisation of high value currency was likely to cast its shadow on the State's finances and the impact could be estimated only towards the end of the current financial year.

The next and last instalment of Rs. 4,000-plus crore would be made soon, he said faulting the opposition Congress for its claims that the agriculture sector was in deep crisis ever since the TRS government took over the reins.

Responding to charges on diversion of input subsidy of Rs. 790 crore released by the Centre, he said the government had prioritised supply of drinking water to all habitations and hence, utilised that amount for providing the same in summer. Orders had subsequently been issued to release Rs. 703 crore dues towards payment of input subsidy and over Rs. 400 crore had already been paid to farmers.

Haryana looking into producing bio-fuel from paddy stubble

The Haryana government is in talks with companies to produce bio-fuel from paddy stubble and also has plans to provide agriculture implements to farmers at subsidised rates to keep a check on the practice of burning straw in the State, Chief Minister Manohar Lal Khattar said on Tuesday.

Mr. Khattar was speaking to the media after the meeting of Nation Capital Region (NCR) Planning Board held under the Chairmanship of Union Minister of Urban Development Venkaiah Naidu at Vigyan Bhawan in New Delhi.

The meeting, held to discuss the steps being taken by the States to control pollution, was also attended by Minister of State (Independent Charge) Planning and Urban Development Rao Inderjit Singh, Haryana Public Works (Building and Roads) Minister Rao Narbir Singh and

representatives of government of Haryana, Punjab, Uttar Pradesh, Rajasthan and Delhi.

Mr. Khattar said that agriculture implements at subsidised rates will help farmers collect paddy straw, which can be used to make bio-fuel.

The CM added that construction work on the Kundli-Manesar-Palwal Expressway has started and it would significantly reduce vehicular pressure on Delhi. Mr. Khattar said that movement of vehicle had started between Palwal to Manesar and construction work on the Kundli-Manesar stretch would be completed at the earliest.

Gurugram Development Authority has also prepared a plan to purchase 500 CNG buses to promote public transport in the NCR area.

Three-day Krishi Mela begins at Bheemarayanagudi farm college

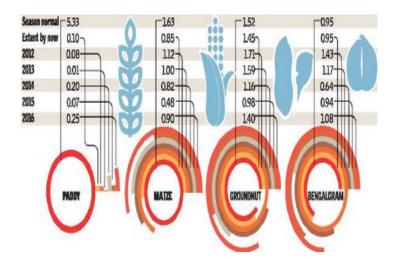


Several recommendations made by the committees formed to study the economic status of farmers have remained unimplemented owing to lack of political will and interest, they alleged and added that if such a situation continued, farmers may face severe financial difficulties in future.

The programme is being jointly organised by the University of Agricultural Sciences, Raichur, agriculture and horticulture departments and the Hyderabad Karnataka Region Development Board.

Discussions and seminars will be held on December 22 and 23 too. Minister for IT/BT and Tourism Priyank Kharge will be present on December 22.

Telangana hopeful of achieving rabi target



As paddy, maize, groudnut, and Bengal gram were the major crops from rabi, comprising about 77.5 per cent of the season's total extent, the possibility of achieving targets were very high. The normal extent of Rabi cultivation for the four crops in Telangana was about 9.36 lakh hectares, and they have been cultivated on over 3.6 lakh hectares already.

"Transplantation of paddy under bore-wells and water bodies has been picking up since the last two weeks, and we are hopeful that the target of 5.33 lakh hectares can be achieved," Minister for Agriculture Pocharam Srinivas Reddy said.

Plans announced

The State government has already announced its plans to irrigate 22.35 lakh acres (8.94 lakh hectares) under minor, medium, and major irrigation sources this season, although it has advised farmers to take up mostly irrigated-dry crops.

"Even if one-third of the planned extent to be irrigated in rabi is covered with paddy, the major crop's target will be achieved," Agriculture Department officials said.

"But for the impact of demonetisation, the cultivation of Bengal gram would have been much higher due to the conducive conditions this season, although it's cultivation is the highest this year compared to the last two years," officials added.

Symposium today

University of Mysore has organised a symposium on Agriculture sciences on Thursday at Department of Biotechnology in Manasagangotri at 4 p.m.

C.D. Mayee, president of South Asia Biotechnology Centre, New Delhi, will speak on 'genetically engineered crops: the science and society', while M.J. Vasudeva Rao, co-founder, GRSV consulting services, will speak on 'genetically modified traits: new opportunities to overcome challenges facing contemporary Indian Agriculture'.

Competitions

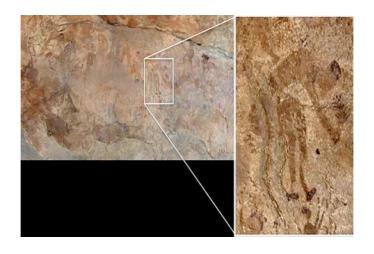
Vivekananda Kendra and Vivekananda Rock Memorial has organised competitions relating to patriotic songs, songs related to Swami Vivekananda, devotional songs, folk songs, Rangoli, quiz on Vivekananda on December 29 at its premises in Jayanagar. For details call Aravinda – 9449488228.

Veggie stew on the menu 10,000 years ago

There were even aquatic plants, some of which are still consumed today.

Learning to cook was crucial to human evolution. It broadened our diet and made available new sources of energy.

Many of the plants discovered would have been poisonous or indigestible eaten raw.



No one knows exactly when our ancestors began to roast meat over an open fire, but the first heat-resistant ceramic vessels date from about 15,000 years ago.

Evidence that they were used soon after that to boil animal products — whether meat or milk — is abundant.

Surprisingly, however, telltale chemical traces in cookware that wild plants were prepared in the same way, have been lacking.

"Until now, the importance of plants in prehistoric diets has been underrecognised," said lead author Julie Dunne, a researcher at the University of Bristol in England.

"What we have found is the first direct evidence of the cooking of plants, which seems to have happened at the same time pottery was invented in North Africa," she told AFP.

The study was published in the journal Nature Plants. It analysed 110 pot fragments discovered at two sites in the Libyan Sahara — which would have been lush and oasis-like at the time — called Takarkori and Uan Afuda. The technique used to detect the plants, called organic residue analysis, looks for signature molecules that worked their way into unglazed pots.

The Neolithic humans who cooked fruit-and-veggie stews were not necessarily vegetarians.

"Some pots seemed to be used to process plants only, some to process meats," Dunne said. "And some were used to process a mixture of both."

Most experts agree that pottery was independently invented twice in human history, first in East Asia about 16,000 years ago, and then again in North Africa some 4,000 years later.

"Ceramics are a major technological invention which allows the processing of foodstuffs in different ways," said Dunne.

Business Standard

Foodgrain output may scale peak next year, agriculture growth at 5.5%

Government has allowed commercial cultivation of Bt cotton and there is moratorium on Bt brinjal



The agriculture sector is all set to bounce back leaving two years of drought behind and may well pull off record foodgrain output of 270 million tonnes in 2016-17 on good rains, but farmers' woes may continue due to adverse impact of notes ban and low sales realisation.

The farm growth is estimated to rise at over 5 per cent this fiscal, from 1.2 per cent in the previous year, on the back of record kharif foodgrain production at 135 million tonnes (mt) and likely bumper output in the ongoing rabi season, helped by good monsoon in most parts of the country.

"The agriculture sector has done well during the year. We received good monsoon after facing the drought year. Kharif in general was very good and rabi sowing has been brisk. We are hopeful of bumper production this year," Agriculture Secretary Shobhana Pattanayak told PTI in an interview.

Although agri-experts have raised concerns about impact of demonetisation on rabi crops and the likely effect of forecast of warm winter on wheat crop, the secretary said the government is not "downgrading" the target for 2016-17 crop year.

"Our target is to achieve foodgrain production of 270 million tonnes while our last peak production was 265.04 mt in 2013-14 crop year (July-June)," he said.

"Agriculture sector growth was lower last year because of drought. But from that level, we will move higher."

On farm sector growth, NITI Aayog Member Ramesh Chand said: "It will be spectacular growth after facing two drought years. We are expecting a growth of 5.5 per cent this year."

The growth rate of agriculture and allied sectors will be 5.3 per cent even if wheat productivity throughout the country is lower by 3 per cent due to rise in temperature, he said.

Asked about adverse impact of demonetisation on farmers, Pattanayak said there is not much impact as the credit system has been strong in rural areas and farmers have become more resilient over the years.

"Our farmers have witnessed very strong drought in last two years and yet they have bounced back. I don't think it has really impacted," he said.

However, farmers' organisations as well as former agriculture minister Sharad Pawar have expressed deep concern about impact of demonetisation, saying farmers are unable to buy quality seeds and fertilisers for their rabi crop and are also facing problems in selling crops for want of demand

Despite record kharif production this year and expected good crop in the rabi season, farmers' conditions continue to be grim due to lower sales realisation, with domestic and global commodity prices staying depressed.

The demonetisation of Rs 500 and Rs 1,000 notes has also affected the domestic demand of fruits and vegetables, forcing farmers to sell their produce at throwaway price.

About farmers' woes, agri-economist Ashok Gulati said: "This year, production is likely to bounce back and therefore, much better than last year. However, farmers are already under debt. And prices of cotton, basmati rice and, with demonetisation, many fresh fruits and vegetables are depressed. Because of that, despite higher production levels, farmers have not gained much. 2016 began on a sticky note as the country's overall foodgrain output remained flat at 252 mt in 2015-16 crop year due to second straight year of drought.

Pulse output fell to 16.5 mt resulting in high prices for most part of the year that kept the government on its toes, which took various steps to cool prices and bring relief to consumers.

The measures like domestic procurement and import to boost local supplies helped ease the prices of tur and urad from about Rs 200 a kg, but chana continues to rule high.

As per the official estimate, wheat output rose to 93.55 mt, from 86 mt, but FCI's procurement fell sharply and domestic prices of wheat and its products began to rise towards the end of the year. The government scrapped import duties on wheat to boost domestic supply.

To provide relief to farmers hit by the cash crunch, the government has given them an additional two months to repay their crop loans due in November-December and said prompt repayment will be eligible for the extra 3 per cent interest subsidy.

The government had earlier allowed farmers to buy seeds through old Rs 500 notes from central and state-owned seed companies as well as from ICAR and central varsities. It had also asked fertiliser companies to sell soil nutrient on credit basis to farmers.

To check food inflation, import duties on palm oils and potatoes were reduced. Stock limit on sugar mills were also imposed to check prices although improved domestic rates helped industry clear arrears to farmers.

The year also saw the successful rollout of the landmark National Food Security Act (NFSA) across the country.

Programmes like new crop insurance scheme and eNAM to link all 585 mandis on an electronic trading platform were announced to augment farmers' income.

In this year's budget, the government raised agri-credit by Rs 50,000 crore to Rs 9 lakh crore for the current fiscal and levied 0.5 per cent Krishi Kalyan cess on all taxable services to fund farm initiatives.

Eminent scientist M S Swaminathan hailed the new schemes, but stressed on proper implementation. He also wanted the government to pay farmers 50 per cent more than the production cost as part of the minimum support price (MSP).

Expressing concern over poor implementation of agri schemes, Gulati, the former chairman of the Commission for Agricultural Costs and Prices, said: "The government should focus completely on agriculture and try to implement some of the programmes properly."

The year also witnessed the government fixing the maximum retail price and royalty for cotton seeds, including Bt cotton, based on its order issued at the fag end of 2015.

The move was opposed by biotechnology firms while the domestic seed manufacturers were in favour of the decision. Global biotechnology major Monsanto threatened to re-evaluate its India business. It plans to introduce new products, besides entering into the legal battle against this order.

However, NCP supremo Pawar recently attacked the NDA government for taking such a move, saying "Indian agriculture is being brought back to licence and control raj which is detrimental to the growth of the sector".

"The government of the day should not have hostility to improve systems

and technologies," he said, adding that the government is overly "cautious" on the technology front.

In May, the agriculture ministry had come out with a notification to regulate the cotton seed market with provisions for compulsory legislations and capping of royalty rates at up to 10 per cent of the retail price.

But it was forced to withdraw this notification amid protest from biotech companies.

Genetically modified (GM) mustard, developed by the Delhi University's Centre for Genetic Manipulation of Crop Plants, was in news throughout the year as regulatory body GEAC was vetting the proposal for commercial cultivation amid strong protest from green activists as well as RSS-backed Swadeshi Jagran Manch.

Amid uncertainty over the government's likely stand on GM crop cultivation, Indian Council of Agricultural Research (ICAR) Director General Trilochan Mohapatra said: "From the research side, the transgenic crop which we have developed should be ready, irrespective of whether the government will release them for commercial cultivation or not."

Five transgenic crops -- brinjal, tomatoes, banana, castor, shorgum -- are ready for large-scale field trials (BRL1), he said, and many GM crops are ready for confined trials.

It will be interesting to see the government's approach in the new year towards allowing cultivation of GM crops, particularly in food crops.

At present, the government has allowed commercial cultivation of Bt cotton and there is moratorium on Bt brinjal due to protest from green activists.

In 2017, the ongoing legal battle involving global MNC Monsanto, the

government and the domestic seed industry will be keenly watched as the outcome will shape the future of regulations for selling GM seeds.

THE TIMES OF INDIA

More farmers on state paddy purchase list

Ranchi: As many as 44,000 farmers have been registered with the state government out of a target of at least 55,000 farmers who will be registered by March 2017. Vinay Chaubey, secretary of food, public distribution and consumer affairs department, said in a meeting with chief minister Raghubar Das on Wednesday.

Chaubey informed that the previous year the state purchased 2.5 lakh metric tonne of <u>paddy</u> from farmers and the target this year is to purchase at least four lakh metric tonne paddy.

Das said the government will be buying paddy at the rate of Rs1,600 per quintal as a result of good produce this year.

He directed the officials to put up camps and register farmers so that they get paid well for the crop instead of selling their produce through middlemen and suffer a loss.

The CM also directed the officials to open more purchase centres wherever needed so that maximum number of farmers are covered.

The farmers would also be paid bonus, Das said and directed officials to open more paddy purchasing centres on mission mode at places where production was more.

Das asked them to prepare a long-term scheme so that the purchased paddy for BPL families and midday meals could be produced in the state itself

Choubey added the registered farmers were being informed through SMS.

Food, Public Distribution System and Consumer Affairs minister Saryu Roy, agriculture minister Randhir Singh, chief secretary Rajbala Verma, additional chief secretary Amit Khare, agriculture secretary Nitin Madan Kulkarni and other officials were also present in the meeting.

BusinessLine

Gujarat farmers return to isabgol with an eye on export market



Rabi sowing is on in full swing, and among the winter crops, isabgol or psyllium is gradually gaining traction among farmers in Gujarat. The sowing season is far from over, and already the sowing of isabgol in the State has exceeded the three-year average acreage.

According to the Gujarat government's agriculture department data, the area under isabgol was 9,700 hectares as on December 13, against the three-year average of 8,900 hectares.

Strong export demand and an assured market have incentivised farmers to take to this crop, which is used in medical applications, besides confectionery and bakery items in Europe, the US, Mexico and Pakistan.

Gujarat's dwindling share

With about 1.2 lakh tonnes of isabgol production every year, India is the leading producer of the crop.

But Gujarat's share of the country's overall isabgol production has gone down from 35 per cent in 2008-09 to about 20 per cent now. On the spot, isabgol fetched ₹2,100-2,300 per 20 kg at Unjha, whereas the processed isabgol husk is priced at ₹150-180 per kg, depending on quality.

A quintal of isabgol seed yields about 25 kg of husk, which is primarily used as a laxative.

Climate risks

AU Amin, in-charge of the research station at Jagudan, Sardarkrushinagar Dantiwada Agricultural University in North Gujarat, explains why farmers diversified into producing isabol.

"There is a climatic risk due to unseasonal rains in winter," says Amin.

"It causes damage to the crop and loss to the farmers. Therefore, farmers gradually shifted to other crops. Also, the price was less remunerative. However, there is a huge scope for value addition of the crop."

The university is in the process of bringing new non-shattering seeds to withstand climatic adversity.

Earlier this month, Prime Minister Narendra Modi had, during his visit to Deesa, called for innovation and value-addition in isabgol to make it more remunerative and attractive to farmers.

Modi recalled that he had suggested to Verghese Kurien, father of the White Revolution, that he should find a way to harness the commercial potential of isabgol. "And he made an ice cream from it and sold in Anand," Modi said.

'No incentives'

However, traders are disappointed by the lack of incentives from the government to take up research and trials for value addition in the crop.

"We are small units and cannot afford heavy investments in R&D for value addition. There are no incentives from the government for small

units to undertake such activities," said Chirag Patel of Satnam Psyllium Industries in Unjha.

Besides Gujarat, Madhya Pradesh and Rajasthan are the key growers of the commodity.

"Most of the arrivals come from Rajasthan and Gujarat. Prices have been stable, and we expect the production too to remain stable next year as there has been no sharp jump in the acreage," said Patel.

According to trader sources, about 90-95 per cent of India's isabgol production is exported.

According to DGFT data, India exported 29,343 tonnes of isabgol in 2011-12; 32,465 tonnes in 2013-14; and 32,325 tonnes in 2014-15.

Pulse buffer-stock seen missing 20-lakh-tonne target

The Central government's ambitious plan of creating a 20 lakh tonnes (lt) buffer stock of pulses in 2016-17 to ensure remunerative prices to farmers is most likely to fail if the tardy progress of procurement so far is any indication.

The 20-lt target comprises 10 lt of imported pulses and procurement of five lt each from domestic kharif and rabi harvests.

Pulse growers are sure to feel short-changed because in many marketing centres prices of kharif pulses are ruling below the minimum support price (MSP) and the pace of government purchase is rather slow.

Tardy process

Under the price support scheme, pulses are to be procured by central nodal agencies such as Nafed, Small Farmers' Agribusiness Consortium, Central Warehousing Corporation, National Consumer Cooperative Federation and Food Corporation of India.

Despite involvement of several agencies, just about two lakh tonnes have been procured as of mid-December. This volume is minuscule in the face of record harvest of 87 lt in the kharif season. On current reckoning, the final actual procurement figure is sure to fall short of five lakh tonnes kharif target.

No private sector

It is unclear why the government is fighting shy of seeking private sector's assistance in building buffer stocks. There are large players with adequate warehouse capacity and expertise in procurement and storage.

Even the much touted Arvind Subramaniam Committee has recommended public private partnership model for creating buffer stock.

To be fair, after two years of damaged crops, pulse growers rose to the occasion, expanded the planted acreage and harvested a record kharif crop of tur/arhar, urad and moong. In kharif 2015-16, pulse harvest was 55 lt and the country went through what was described as 'dal shock'. As for imports, State agencies such as MMTC and STC have reportedly contracted for a little over four lakh tonnes comprising tur/arhar (pigeon pea), masur (lentil), chana (desi chickpea) and urad (black matpe).

Import data anomaly

Not all of this has hit the Indian shores; and yet the government claims even the quantity not received to be part of the buffer stock. The inability to procure sufficient quantities at MSP and thereby arrest price fall below MSP is already seen upsetting growers in different parts of the country.

This can potentially have repercussion on next year's kharif sowing.

While on the one hand government agencies have been unequal to the task of procurement, on the other hand, extant stock limits are seen hurting the marketability of kharif pulse crops.

Given that production has rebounded and imports are continuing, there is no rationale for continuing with storage restrictions.

Without doubt, stock limits must go forthwith. In some cases, imported pulses are priced lower than the MSP. For instance, imported tur/arhar is available at \$600/tonne equivalent to ₹42,000, while MSP for domestic crop is ₹50,500.

This justifies imposition of customs duty on imported pulses. Import duty would not only generate revenue for the exchequer, but also act as price support mechanism.

A 10 per cent duty on pulse imports will generate revenue of well over ₹1,000 crore.

The move will also prop up domestic prices and bring relief to growers suffering tardy procurement.

Will the government bite the bullet? Any apprehension of a spurt in pulse prices would be unfounded because of large harvest in kharif season, continuing imports and satisfactory progress of rabi season planting. Chana is the dominant pulse crop harvested in February/March.

The author is a Global Agribusiness and Commodities Specialist. Views are personal.

Govt to improve IP utilisation, protection for plant varieties

The Centre will work towards improving the parameters related to intellectual property (IP) profile, management and utilisation of IP for plant species for protecting and promoting development of new plant and seed varieties, Agriculture Minister Radha Mohan Singh said.

The Protection of Plant Varieties & Farmers' Rights Authority (PPV&FRA) would be re-constituted to implement the National IPR Policy regarding plant species, Singh said at the Plant Genome Saviour Awards ceremony on Wednesday.

The institutes related to Indian Council of Agricultural Research, State Agriculture Universities and National Seed Association of India, etc will work together with the Authority.

The Centre has already approved the proposal to open three new branches of the Authority in Palampur (Himachal Pradesh), Pune (Maharashtra) and Shivmogga (Karnataka).

Coonoor tea volume at 10-mth low

The last auction for calendar year 2016 of Coonoor Tea Trade Association (CTTA) will be held on Thursday. For this Sale No: 51, the volume offered is just 8.15 lakh kg – the lowest in 10 months. The volume was lower than this at 7.98 lakh kg in Sale No: 22 on June 3. This is some 95,000 kg less than the offer of last week.

CTTA Chairman Ramesh Bhojarajan told *BusinessLine*, "the arrival is low because of reduced production as factories are functioning only for four or five days a week due to shortage of green leaf, the raw material.

The harvest of green leaf has fallen drastically following prolonged dry conditions and adverse moisture presence in the fields. We anticipate a 30 per cent fall in production this calendar over 2015."

Cooking oils caught in bear grip



Edible oils market opened weak tracking overnight bearish foreign markets amid slack demand but turned better on gain in futures in Malaysia and Chicago. Indigenous edible oils were also under pressure on rising new arrivals and pick-up in crushing/refining. Local refineries kept their rates unchanged.

Ruchi traded sunflower oil at ₹725. Allana'srates:palmolein ₹630, soya refined oil ₹730 and sunflower refined oil ₹735. Golden agri and Emami quoted palmolein for ₹625 and ₹620 respectively.

At Rajkot, groundnut oil *telia* tin dropped to ₹1,460 (1,470) and loose (10 kg) declined to ₹925 (935). BCE spot rates (₹/10 kg): groundnut oil 980 (1,000), soya ref. 725 (730), sunflower exp. ref. 665 (670), sunflower ref.

725 (730), rapeseed ref. 860 (860), rapeseed exp. ref. 830 (830), cottonseed ref. 700 (700) and palmolein 614 (615).

Chronicle

Green for all seasons

Sandalwood actress Sruthi Hariharan lets us in on a 'green'y comfort food she loves to stuff her face into!



The Clean Green Salad!
The Clean Green Salad!

Ingredients

- Two full beetroots
- 1/2 a lemon / 3 tsp lemon juice
- One pomegranate
- 2 tsp black salt
- Half a cup green gram sprouts
- One cube cheddar cheese/ cottage cheese for taste (optional)

Method

Fill up a capacious bowl with green gram sprouts and seeded pomegranate. Now, grate peeled beetroot and mix it well. Sprinkle a smattering of lemon juice and black salt. Finish off by throwing in chunks of well marinated cottage cheese or finely sliced cheese cubes.

Voila, here's a salad which is packed with nutrients and keeps you full for a long time.



Fertiliser sales have not been impacted by cash crunch so far

Only in urea were sales, at 26.89 lt last month, marginally lower than the 27.37 lt for November 2015.



Demonetisation of high-value currency notes does not seem to have majorly affected fertiliser sales.

According to the Department of Fertilisers, sales of di-ammonium phosphate (DAP) amounted to 11.89 lakh tonnes (lt) in November, an increase of 29.5 per cent over the 9.18 lt for the same month of last year. Sales of muriate of potash (MOP) and complexes (fertilisers with varying proportions of nitrogen, phosphorous, potash and sulphur), likewise, went up by 71.8 per cent (from 2.06 lt to 3.54 lt) and 7.5 per cent (from 6.97 lt to 7.49 lt), respectively.

Only in urea were sales, at 26.89 lt last month, marginally lower than the 27.37 lt for November 2015. But sales of this most widely consumed fertiliser in India had registered a dip even during the kharif season (April-September). That decline has continued in the ongoing rabi season from October, which may have less to do with the November 8 demonetisation decision as much as two other factors.

The first of these is the NDA government's policy to make neem-coating mandatory for all urea sold in the country. Normal urea is prone to nitrogen loss on account of leaching (underground percolation) and volatilisation (escaping into atmosphere). Neem-coating enables slow release of nitrogen, thereby improving urea consumption efficiency, apart from controlling illegal diversion of the fertiliser for non-agricultural

uses. The second reason could be the expansion in pulses acreage this year. Being leguminous crops that naturally 'fix' atmospheric nitrogen, pulses require less urea application.

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SALES OF FERTILISERS (IN LAKH TONNES)				
	UREA	DAP*	MOP	COMPLEXES
Apr-Sep 2016	144.14	42.40	13.50	41.79
Apr-Sep 2015	154.79	50.68	12.60	45.02
Growth (%)	-6.88	-16.34	7.14	-7.17
Oct-Nov 2016	44.19	21.88	6.34	13.73
Oct-Nov 2015	56.55	18.08	4.25	13.69
Growth (%)	-21.86	21.02	49.18	0.29

So, hasn't demonetisation been a factor at all? "Farmers aren't aggressively purchasing, which one would have expected, especially with the soil moisture and weather conditions being conducive this time after two consecutive drought years. Also, domestic prices have fallen significantly between April and September — from an average of Rs 27,880 to Rs 22,949 per tonne for DAP and from Rs 16,980 to Rs 11,393/tonne for MOP. Both together should have substantially lifted sales. If that hasn't really happened, it means demonetisation has had some role," said an industry source.

Moreover, a lot of fertiliser sales are currently taking place on credit. "We normally offer material to dealers on 30-day credit. This time, companies are extending it to 60 or even 90 days, which the dealers are also passing on to farmers, who obviously are in no position to make cash purchases," the source pointed out, adding that a clearer picture of demonetisation's impact would be available once the sales data for December is out.

GM technology: Trait fee war between Monsanto and Indian seed firms intensifies

Monsanto has sublicensed its BG-II Bt technology — which was granted an Indian patent in February 2008 – to 49 companies.



A new battlefront is opening up between Monsanto and a section of Indian seed companies that are sub-licencees of the US life sciences giant's proprietary Bollgard-II (BG-II) Bt cotton technology.

The National Seed Association of India (NSAI), representing domestic seed firms such as Nuziveedu Seeds, Ankur Seeds and Kaveri Seed Company, has claimed that the power to fix royalty or 'trait value' payable to the developer of any plant genetic modification (GM) technology lies with the Protection of Plant Varieties & Farmers' Rights (PPVFR) Authority.

The reason for this is that Section 3 of the Indian Patents Act, 1970 specifically excludes from patentability any "method of agriculture or horticulture" and "plants and animals in whole or any part thereof other than micro-organisms but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals". On the other hand, Section 2 (za) of the PPVFR Act, 2001 clearly defines a plant variety to include "transgenic (i.e. GM) variety".

"GM crops such as Bt cotton, therefore, receive intellectual property protection (IPR) only under the PPVFR Act. By implication, trait value payable to the GM technology supplier is a matter to be decided by the PPVFR Authority. There is, in fact, a section 26 in the Act relating to the determination of benefit sharing between the supplier of a unique genetic material and the breeder/seed company who has used this in the development of his variety. The PPVFR Authority has the powers to stipulate the amount of such benefit sharing, which obviously extends to prescribing a reasonable trait fee payable by the breeder," says Kalyan Goswami, executive director, NSAI.

The above interpretation has, however, been completely rejected by Monsanto. The PPVFR Act, it contends, deals only with providing IPR protection to varieties, which refer to "a plant grouping...within a single botanical taxon (i.e. species, family or class)". Moreover, "varieties" excludes micro-organisms that cover bacterium such as Bacillus thuringiensis or Bt, whose genes have been incorporated into cotton hybrids. The Bt genes code for proteins toxic to Helicoverpa or American bollworm insect pests.

"A breeder can develop a hybrid or variety containing the Bt genes and seek IPR protection for the same under the PPVFR Act. But the GM trait per se (the technology for inserting the Bt or any other alien genes into the genome of the host plant) is not covered by this Act. A modified gene sequence cannot be considered as a plant grouping and the PPVFR Act has no provision conferring the authority the power to protect or regulate GM traits. Benefit sharing provisions, too, are triggered only for a registered variety/hybrid that may contain GM traits, but not for the GM traits per se", contends Dhiraj Pant, Technology Development Lead-Asia for Monsanto.

Monsanto has sublicensed its BG-II Bt technology — which was granted an Indian patent in February 2008 – to 49 companies. In November 2015, the multinational terminated its sublicense agreement for the technology with Nuziveedu Seeds, alleging that the latter, along with group companies, had pending trait value dues of over Rs 165 crore.

According to Monsanto, trait fees are governed by technology licensing agreements bilaterally executed between it and individual seed companies. Bringing in the PPVFRA — when GM traits are patentable and Monsanto clearly has a patent for Bollgard-II Bt technology — is only aimed at wriggling out of payment of contractual liabilities. Monsanto has even cited the Nuziveedu Seeds chairman M Prabhakar Rao's recent appointment as a member of the PPVFRA, which, it believes, raises possible conflict of interest in the matter of licensing and trait fees involving GM seed technology.

"This is nonsense. The PPVFRA has a representative from the seed industry and Prabhakar Rao is there today by virtue of being the president of NSAI. Was there no conflict of interest in the past when the industry

was represented by Usha Barwale Zehr of Maharashtra Hybrid Seeds Company, Monsanto's partner in the 50:50 joint venture (Mahyco-Monsanto Biotech) through which the BG-II technology is being sublicensed?" quips Goswami.

When money stops: Notebandi takes life out of Gujarat's mandis

Crop arrivals plunge to 15 per cent of normal, as farmers, traders scrounge for cash.

AT 6 AM, there's still time for the auctions, but farmers have already filled a giant shed in this town's old APMC (agriculture produce market committee) yard with their fresh harvested vegetables. About half-anhour later, a freshly shaven Ghanshyam Pokar, the auctioneer for Shree Patel Group, a leading commission agency-cum-trading firm here, arrives and is immediately surrounded by buyers that include vegetable vendors. The auction, then, begins with bids as low as Re 1 per kg, before settling at Rs 2 for brinjal. In almost all others — cabbage, cauliflower, red/green chilli, carrot, radish, lemon, spring onion and ginger — the prices don't exceed Rs 10/kg. By 8 AM, when Pokar has finally wound up, the entire produce in the shed has been auctioned off.



Bakul Savaliya, a farmer from the outskirts of Gondal — 40 km from Rajkot city and housing Saurashtra's, and one of Gujarat's, biggest APMC — doesn't hide his disappointment. The 50 kg of carrots that he brought fetched a mere Rs 4 per kg. "I've been coming here for the last 10 days and prices have never crossed Rs 8. At these rates, can I recover anything other than my own labour of digging out the carrots, cleaning and lugging them here?" asks this 34-year-old who has grown the vegetable on his 20-bigha holding (six bigha make a hectare).

Ramji Jamod, another farmer from Jamwadi, a village five km from Gondal, is similarly bitter about his 15 kg of green chillies grossing just Rs 150 at Rs 10/kg. He has reasons to be so: "It is biting cold, especially when I have to ride my bike and be here by 5 AM to find enough space for unloading the produce. And at the end, what am I getting?"

Jamod's sole consolation is that he has started getting payment in hard cash. After Notebandi — the NDA government's November 8 announcement scrapping the legal tender status of Rs 500 and Rs 1,000 denomination currency notes — the Gondal APMC was closed for a couple of days.



"I tried hawking the vegetables myself, but found it too time-consuming and so returned to selling through the Shree Patel Group. They first did not pay anything for a whole week. Then, they paid Rs 7,000 in the old notes, of which I am still carrying Rs 4,000. But for the last two weeks, they have been paying in valid currency notes," says Jamod. While he attributes the fall in prices to notebandi, Pokar — whose firm earns a 6 per cent commission, charged on the price paid by the buyer, on top of a 0.7 per cent APMC user charge — blames it equally on the spike in arrivals from a good crop this time.

The Class III-pass Jamod tills 50 bigha land taken on a three-year lease, costing Rs 80,000 annually. "Paying it isn't an issue. My problem today is finding hard currency. The five quintals of kapas (raw unginned cotton) that I sold fetched me Rs 25,625, but the entire payment was through cheque. Since there was no cash, I had to borrow Rs 6,000 for paying the cotton pickers. I now need labour for picking the residual groundnut pods in the soil. As I'm not sure when the cheque can be encashed, it looks we

(wife and three children included) will have to do the job ourselves," he complains.

Jamod, during the kharif (post-monsoon) season, had planted groundnuts in 30 bigha, cotton in 15 bigha and vegetables — mainly chillies and val papdi (broad beans) — in his remaining five bigha. He is yet to sell his 40 quintals of harvested groundnuts, waiting for prices to improve. Vegetable sales are keeping his family going for the time being.

"I have sold Rs 25,000 worth of produce so far. But I have also been spending Rs 2,500 per week on pesticides alone, apart from irrigating the standing chilly using tanker water. I have already purchased seven tanker loads, each costing Rs 1,500," notes Jamod. Given the acute water shortage, he has even resorted to harvesting tender green chillies. The ones that are half-ripe, he is allowing to further ripen, before harvesting, sun-drying and finally taking to the market.

Meanwhile, in the Gondal APMC's new yard, Gujarat's largest market for groundnut, the auctions start at 8:30 AM. On Monday — which saw arrivals of 16,043 bags of 35 kg each — the bids ranged from Rs 3,200 to Rs 4,305 per quintal. The average rate, at Rs 3,700 per quintal, was well below the Centre's minimum support price of Rs 4,220.

Among the 100-odd farmers waiting for their produce to go under the hammer is 35-year-old Dhiru Mer, who belongs to Kundani village in Rajkot district's Jasdan taluka. Although Jasdan has an APMC, he prefers travelling 80 km and paying Rs 2,000 to the trucker to sell at the Gondal yard, where prices are better. The auctioneer Hansraj Sardhara declares Mer's two separate piles of groundnut "sold" at Rs 3,780 and Rs 4,055 per quintal. But Kishor Rajapara, who has placed the higher bid, is ready to pay Mer Rs 80,000 only through cheque. "I feel bad, but we ourselves are being paid by cheque and banks are allowing us to make weekly withdraw of just Rs 50,000," states this trader. Mer picks out a Rs 20 note from his pocket, swearing he has nothing else — "not even money to buy lunch".

December is the peak season for groundnut arrivals. "Normally, at this time, these would be one lakh bags daily, whereas we are hardly getting 15 per cent of that. Only farmers with debts to clear or having special family obligations are coming to sell", admits Jayantibhai S Dhol, chairman of the Gondal APMC.

There is a dearth of buyers, too. "The only ones active are the oil mills and even they aren't stocking up. Farmers come to me every day demanding cash. But I am unable to oblige, because there's nobody to pay me by cash. I am issuing over 50 cheques daily, while running out of leaves every second day. There are many cases of delayed clearances and even bouncing of cheques," observes Haresh Vadodariya, a commission agent and also a director of the APMC.

The cash crunch, post-demonetisation, has also slowed down rabi (winter) season plantings. Jayantibhai Hadwani, who cultivates 18 bigha in Navagam village of Junagadh district's Vanthali taluka, got 40 kg of coriander seeds from a fellow farmer, but had to spend four days in bank queues to deposit his old notes and withdraw new currency. On Monday, the 50-year-old's son lined up before the State Bank of India's branch at Shapur, a nearby village, only to return empty-handed. Hadwani himself is owed Rs 15,000 by other farmers who had hired his tractor and thresher.

Sagar Makadiya, a farmer from Khadpipli village in Junagadh's Mendarda taluka, has harvested 34 quintals of groundnut from eight of his family's 10 bighas. He does not want to sell at the current rates, but was forced to borrow Rs 5,000 to pay labourers for picking up the residual groundnut pods and prepare his field for sowing coriander. The coriander seeds and fertilisers, too, he purchased on credit. Last week, Makadiya's father sold three quintals of kapas from the remaining two bighas at Rs 5,140 per quintal. The trader who bought issued a cheque for Rs 16,000, which bounced, as the bank found that his father's name had been spelt differently. So, Makadiya's father has gone back to the trader, requesting for a fresh cheque for the same amount.

The worst-hit, though, are agricultural labourers. Six families from Nandurbar district of Maharashtra are currently camping in Khadpipli.

"Farmers here owe us over Rs 8,000. We want to return home, but the pending dues are holding us back," informs Sanjaya Nahade, who is one of those awaiting payment from equally cash-strapped farmers.

For farmers in Marathwada, Vidarbha, a season of record payments

With 147 mills operational, as of December 15, cane growers in Maharashtra were supposed to receive Rs 2180.68 crore in payment.

The cash crunch after demonetisation seems to have had no effect on sugar millers in Marathwada and Vidarbha, as many of them are making record payments to cane growers in their region. The second payment report of the crushing season in 2016-17 shows that till December 15, mills in the Nanded, Amravati and Nagpur regions have paid well above the mandated amount they were supposed to pay.

With 147 mills operational, as of December 15, cane growers in Maharashtra were supposed to receive Rs 2180.68 crore in payment. The mills, in turn, have made payments to the tune of Rs 1299.096 crore, about 60 per cent of the dues.