

SUGAR

Making compost out of sludge and sugar refinery waste

Add the waste from sugar refineries to the sludge produced by WWTPs (wastewater treatment plants), and what do you get? According to research carried out by the Faculty of Sciences Semlalia at the Cadi Ayyad University of Marrakech, Morocco, in collaboration with the company Biodech Ltd – specialised in recycling waste – you get rich and useable compost.

Mixing WWTP waste with this sugar 'scum' – left over from the process of refining beetroot juice and sugar cane using lime, enables a reduction in both the bacterial content and the loss of gases from the resulting compost, while also improving its quality. This also means that such sugar refinery waste, which typically represents around 270,000 tonnes per year and normally ends up in landfill, has the potential to be instead transformed into something a little more useful.

The development of this technique also represents a business opportunity. The results of the experiments have so far been released at several national and international conferences, spreading the word that – from both physiochemical and bacteriological viewpoints – adding this sugar refinery waste and industrial sludge to compost is a step worth taking. Especially considering that this type of compost meets the French NFU 44095 standard, which outlines the specifications required for these types of WWTP related compost. Having been through a rigorous testing period, this method has produced some excellent results. A patent is soon to be filed.

“Legislation on water management (Law 10-95) and the National Liquid Sanitation Plan have succeeded in pushing municipalities, cities and industrial companies to develop water treatment and purification stations, WWTPs. These stations operate under different models to produce treated water, which is still not being recovered in Morocco, apart from by a few commendable initiatives,” explains Professor Khalid Fares, director of the project as part of the Biochemistry and Plant Biotechnology (BBP) team at Cadi Ayyad University. “In addition, the sludge is frequently discarded in or alongside public landfill sites. It's the 'missing' link in Law 10-95.”

Initially, the compost produced by Biodech will only be used in recreational green spaces “as there is a strong resistance to change in Morocco, and the virtues of compost are widely unknown.”

Biodech was initially created through the Marrakesh University incubator by Fares and a fellow researcher from the Biochemistry and Plant Biotechnology (BBP) team, Nabila Saadaoui. The pair have already secured four Moroccan patents for their work on waste recovery, including three involving sugar refinery waste. The company is also working on other solutions including the composting of vegetable water; such as that contained in the cells of olives. This low-cost solution reduces the need for chemical fertilisers, with their detrimental effect on groundwater. Biodech was invited to present their findings at the COP21 climate conference last year.

(Source-<http://sugarnews.in/making-compost-out-of-sludge-and-sugar-refinery-waste/>, published on 3rd November, 2016)

Sugarcane growers in poll-bound UP look forward to higher SAP

After a gap of three years, sugarcane growers in the poll-bound Uttar Pradesh are looking forward to an increase in the State Advised Price (SAP) for the cane in the current 2016-17 season starting October.

At the recent initial consultations, UP farmers have demanded that the State fix the SAP at ₹ 350 a quintal, while the industry has suggested that the government link up the cane price to that of sugar. Further talks on cane price are likely to take place next week, sources said.

Uttar Pradesh, a large sugar producer, declares its own SAP for cane, which is typically higher than the fair and remunerative price (FRP) announced by the Centre. The Samajwadi Party government had previously increased the SAP by ₹ 40 to ₹ 280/quintal for the common sugarcane variety in 2012-13 and had maintained it at that level for the past three seasons. In the last sugar season SAP in Uttar Pradesh stood at ₹ 290 for early maturing variety, which have a higher recovery rate and ₹ 280 for the general variety.

“Though farmers are demanding ₹ 350 a quintal, we are expecting that there will be an increase of ₹ 20-30 in SAP this year,” said Sudhir Panwar of Kisan Jagriti Manch, a farmers' forum.

As farmers have been switching over to the high yielding and early maturing varieties such as CO 238 and CO 239 in parts of western and central UP, they stand to gain from an increase in SAP. “More than 50 per cent of the area in the western and central UP has early maturing varieties,” Panwar added.

Cane arrears

As on September 30, sugarcane acreage in UP stood at 21.79 lakh hectares, higher than last year's 20.52 lakh ha. And the State has some 2.6 million sugar cane growers. Though sugar prices have been firming up from January this year, a few mills are yet to clear the cane arrears for the previous season, and the outstandings are estimated at over ₹ 1,300 crore. Ex-factory prices in Uttar Pradesh, which ruled at around ₹ 2,800/quintal in October 2015 are now hovering at around ₹ 3,500-3,600.

About 92.5 per cent of the payments to the farmers has been made in Uttar Pradesh and only those mills that have a weak balance sheet and financial problems were yet to clear the arrears, sources said.

In UP, about four mills have commenced crushing operations for the current season and many are expected to start in the weeks ahead.

According to Indian Sugar Mills Association, UP is expected to produce about 12 per cent more sugar in 2016-17 season at around 7.66 million tonnes (mt) against last year's 6.84 mt on higher acreage and good rains.

Production to drop

Overall sugar output in the country is expected to dip seven per cent at 23.5 mt (25.1 mt) mainly on account of lower production in drought-affected Maharashtra and Karnataka.

In Maharashtra, sugar output is seen lower by a fourth at 6.27 mt (8.41 mt), whereas in Karnataka the production is expected to be down 22 per cent at 3.19 mt (4 mt). Indian sugar industry has started the 2016-17 season with an estimated opening stock of 7.7 mt.

(Source- <http://sugarnews.in/sugarcane-growers-in-poll-bound-up-look-forward-to-higher-sap/>, published on 3rd November, 2016)

Karnataka faces acute shortage of sugarcane for the second consecutive year

As expected, Karnataka is facing acute shortage of sugarcane availability for the second consecutive year, which is bound to cost the State's sugar production prospects dearly during the current crushing season 2016-17. This has been caused by the two successive spells of drought and shortage of water in the rivers flowing in the Krishna basin in North Karnataka districts.

After a record production 49.80 lakh MT sugar by crushing around 450 lakh MT at an average recovery of 11.05% during 2014-15, the graph declined the following year with the sugar production falling down to 40.45 lakh MT by crushing 376.65 lakh MT with sugar recovery accounting for 10.74%. About 65 sugar mills in private and co-operative sectors had taken up crushing operations during these two years, R.B. Khandagave, Director, S. Nijalingappa Sugar Institute (SNSI) told The Hindu here on Thursday.

According to an estimate, the 65 working sugar mills are facing a shortage of around 30% of sugarcane availability due to less sowing and less than required growth of the plants. The State's normal sowing area account for 4.52 lakh ha to 5.0 lakh ha with an average cane yield of around 80 to 100 tonnes per hectare, further yielding an average recovery of 11%. But, this year, cane availability is estimated to be in 3.50 lakh ha. Also, the yield could decline to just 75 to 80 tonnes per hectare and recovery to 10%. The crushing duration could also be reduced from the normal period of about 150 days to just 70 to 80 days. Added to this, around 10 to 15% of the crop is used for seeds and preparation of jaggery.

He said the shortage has been visible since January this year. The water shortage and prevailing drought conditions also discouraged traditional growers from switching over to other crops. Many farmers also avoided sowing ratoon crops due to this.

Tricky situation

The shortage of cane has led to a ticklish situation for the sugar mills, even though the sugar prices are expected to remain at higher level and not less than Rs.3000 per quintal. The mills are looking up for improving productivity for the fact that nearly 80 to 85% of their incomes come from sugar and the remaining from its by-products.

Apparently, the mills are looking for crushing cane of better variety and age so as to get maximum recovery. Also, the shortage could spark off unhealthy competition among the mills, which could encroach upon sugarcane belts outside their registered areas and procure cane from nearby areas in other districts and even neighbouring States.

FRP

Significantly, the farmers continue to be apprehensive about getting a better price for their produce. For the sugarcane growers, the Fair and Remunerative Price (FRP) of Rs.230/quintal linked to a basic sugar recovery rate of 9.5% for the current season has lost its relevance under

the prevailing conditions, said National Farmers Organisation president B.P. Sheri. The growers continued to be exploited as the Karnataka government was not willing to announce State Advisory Price (SAP) for sugarcane for the year 2016-17. The last SAP announced in 2013-14.

(Source- <http://sugarnews.in/karnataka-faces-acute-shortage-of-sugarcane-for-the-second-consecutive-year/>, published on 3rd November, 2016)

Co-gen/Power

IEX spot power rate hits 6-month high in Oct at Rs 2.46

The average spot power price at the Indian Energy Exchange touched a six-month high of Rs 2.46 in October due to higher demand, particularly from industrial units and southern states.

"The spot price of electricity has been on a slightly higher side in October also due to high demand, particularly from industrial units and southern states," an IEX official told PTI.

The average power price was recorded at Rs 2.91 per unit in April this year. It was on the lower side thereafter at Rs 2.32, Rs 2.31, Rs 2.16 and Rs 2.17 in May, June, July and August, respectively.

It picked up again to Rs 2.43 per unit in September this year. The spot power price was the highest in six months at Rs 2.46 per unit in October.

"October saw attractive and competitive price in IEX Spot Power Market with average Market Clearing Price (MCP) at Rs 2.46 per unit, 19 per cent less than MCP of Rs 3.03 per unit in the same month last year. The average Area Clearing Prices (ACP) ranged from Rs 2.40 to Rs 2.75 per unit across regions," IEX said in statement.

The market remained liquid with average daily sell bids of 235 MUs (million units) and purchase bids of 139 MUs. During October this year, 3,609 MUs were traded which on a daily average basis is 116 MUs, about 10 per cent increase over 105 MUs traded in the same month last year, it said.

The open access consumers (industrial units) accounted for almost 60 per cent of the cleared volume, mainly due to competitive price.

However, the congestion on the inter-state transmission network increased, affecting import of power in the Southern and Northern regions.

About 3.6 MUs were lost on a daily average basis. The Southern corridor was congested about 42 per cent of the time and the congestion was mainly due to increase in demand for power in South.

Congestion in the Northern corridor was experienced for about 16 per cent of the time during the month, it said, adding that the Term-Ahead Market remained vibrant and over 93 MUs were traded -- about 220 per cent increase over 29 MUs traded last month -- owing to increase in demand due to the festive season.

Uniform rate prevailed for three days - October 7, 8 and 9 -- in line with the One Nation, One Grid and One Price motto of the Government.

The Eastern and Western States were selling power in October'16 and the sale quantum of these regions was 2,392 MUs. The Northern and Southern regions were buying power through the month and the buy quantum of these regions was 2,265 MUs, it added.

(Source-http://www.business-standard.com/article/pti-stories/iex-spot-power-rate-hits-6-month-high-in-oct-at-rs-2-46-116110400620_1.html, published on 4th November, 2016)

1K MV wind power projects to complete by December: Ministry

The entire process under international competitive bidding will be completed by the end of the this year

New and Renewable Energy Ministry expects to complete the process for awarding 1,000 MW wind power projects worth around Rs 6,000 crore by December-end.

"The nodal agency Solar Energy Corporation of India (SECI) has already floated Request for Selection (RFS) document for selection of bidders under the scheme for awarding 1,000 MW of wind power projects," a senior official said.

The official further said, "The entire process under international competitive bidding will be completed by the end of the this year. The last date for submission of financial bids is December 15, 2016 after which bids will be opened and evaluated."

About the reserve price or per unit rate of energy to be supplied by these bidders, the official said, "The government has not kept any reserve price and left it to the market to decide the rate. At present, wind power price ranges between Rs 3.9 per unit (lowest in Tamil Nadu) and Rs 5.5 per unit in other states."

The ministry has already issued guidelines for transparent bidding process for implementation of the scheme for setting up of 1,000 MW wind power project connected to inter-state transmission system (ISTS).

As per guidelines, the wind power projects will be selected through open and transparent competitive bidding followed by e-reverse auction and the capacity may go higher than 1,000 MW, if there is a demand from buying entities.

Discoms of non-windy state and UTs and also the bulk consumers of any state/UTs who intend to buy 10 MW or more can buy wind power under the scheme.

PTC India Ltd, trading company selected by SECI under the scheme, will sign Power Purchase Agreement (PPA) with wind projects at bided tariff and back-to-back Power Sale Agreement (PSA) with buying entities at a pooled price of the total bids selected. The term of PPA and PSA will be 25 years.

Bidder can bid for a minimum capacity of 50 MW and maximum up to 250 MW. The selected bidder is required to inject wind power at ISTS interconnection point.

Bidder is allowed to install 5% of additional rated capacity that will compensate auxiliary consumption and system losses up to interconnection point.

Provision relating to pass through of GST impact, part commissioning, efficiency in generation, performance monitoring have also been stipulated in the guidelines.

The ministry had sanctioned a scheme on June 14, 2016, to encourage competitiveness through scaling up of project sizes and introduction of efficient and transparent e-bidding and e-auctioning processes.

It will also facilitate fulfilment of Non-Solar Renewable Purchase Obligation (RPO) requirement of non-windy states.

In order to facilitate transmission of wind power from these windy states to non-windy ones, provisions have been made in the tariff policy to waive the inter-state transmission charges and losses for wind power projects and the Ministry of Power has already issued order in this regard.

(Source-http://www.business-standard.com/article/economy-policy/1k-mv-wind-power-projects-to-complete-by-december-ministry-116110300523_1.html, published on 3rd November, 2016)

India to be global coal production bright spot: Report

India will be a global coal production bright spot with the country increasing global market share of output from 10.1 per cent in 2016 to 13.1 per cent by 2020.

In 2016, the country will surpass the United States to become the second largest coal producing country in the world, second only to China, despite remaining a net importer of the mineral, BMI Research said.

The government's desire to attain self-sufficiency in coal in order to improve domestic electricity provision will see state-owned Coal India (CIL) to remain the country's largest producer. The miner produced 536.5 million tonnes (MT) of coal in the fiscal ending March 31 2016, representing a growth of 8.6 per cent y-o-y, which is their highest annual tonnage increase since inception.

"Nevertheless, we believe the difficulties in land acquisitions and environmental clearances will remain key obstacles to CIL's expansion plans in India over the coming quarters," it said.

In March 2015, the Indian government passed the Coal Mines (Special Provisions) Bill, under which private as well as foreign mining companies are allowed to enter the domestic coal market, a previously state-monopolised sector, to sell and produce coal.

However, the government announced in June that auctions will be delayed for a few months due to a lack of takers.

(Source-http://www.business-standard.com/article/pti-stories/india-to-be-global-coal-production-bright-spot-report-116110401376_1.html, published on 4th November, 2016)

Quote of the day

“Example is not the main thing in influencing others. It is the only thing.”- Albert Schweitzer