

Bio-composting in Sugar Mills

Press mud is a residue left over from sugarcane after extraction of juice. Depending on the quality of cane and the extraneous matter that comes with sugarcane, press mud is about 3.5% to 4.5% of total cane crushed. The composition of raw press mud includes carbon, nitrogen, phosphorous, potash, calcium, magnesium, copper, zinc, manganese, iron, silicon and wax. The composition varies significantly on the soil conditions, cane varieties, period of supply of cane and geographical variations. The content of nitrogen, phosphorous and potash in press mud is about 2.5%, 1.5% and 3% respectively.

Simultaneously, spent wash is an effluent, which is a waste of distilleries producing alcohol/ethanol, mostly attached to sugar mills. The spent wash also has beneficial nutrients like nitrogen, phosphorous, potassium etc.

At present, the sugar mills use spent wash with press mud to produce biocompost as a manure. This is an approved method of disposal of distillery effluents. As per experience, the productivity of not only sugarcane but other crops also is much better with use of this manure. It is therefore, in the interest of farmers and the agriculture sector to use press mud and spent wash to produce this manure.

Almost all the sugar mills in India produce manure by using press mud, which, besides being soil friendly manure also substitutes potash, a large quantity of which, is imported in the country, thus, saving foreign exchange also. The sugar factories have already invested hugely for production of manure, the process of which is duly approved by the Central Pollution Control Board (CPCB).

The CPCB is now insisting to adopt emerging technologies for disposal of press mud and spent wash and is pressing hard to adopt the process of incineration of spent wash by the distilleries. They have also prepared a draft guideline for co-processing of distillery spent wash concentrate in cement industry. In case, such a thing is allowed to happen, the mills would not be able to produce the soil friendly manure and all the useful nutrients including potash, which is largely imported, would be burnt in cement kilns. Keeping in view the benefits of the manure and reasonably good availability of the same, it would be in the interest of farmers' community that biocomposting is encouraged.