

Pressmud

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Pressmud, a byproduct of sugarcane, can generate 460,000 tonnes of compressed biogas (CBG).



[Ref - Fortune India]

About Pressmud:

- **Pressmud** is a **byproduct of the sugar industry**, is recognized as **filter cake** or **press cake**.
- It contributes to **green energy production** by being used as a feedstock for **biogas production** through **anaerobic digestion**.
- This process results in **compressed biogas (CBG)**, providing additional revenue for **Indian sugar mills**.
- Its yield ranges from **3-4% by weight** from the processed sugarcane.
- Approximately **11.4 million tonnes of pressmud** were produced in India in **2022-23**.
- It is a **valuable resource for the CBG industry**, addressing **waste management in sugar mills** and providing a **sustainable energy source** and **organic fertilizer**.

Advantages of using Pressmud as CBG Feedstock:

- **Simplified supply chain** compared to agricultural residue.
- **Single or few producers/sugar mills** as sources, **reducing complexities**.
- **Quality assurance** as it lacks concerns like inorganic material found in municipal solid waste.
- **Elimination of pre-treatment costs** due to the **absence of organic polymer lignin**.
- **Higher conversion efficiency** and **cost-effectiveness** compared to other feedstocks.

Challenges involved with Pressmud:

- Its **storage** is challenging as it undergoes **gradual decomposition**, resulting in the breakdown of organic compounds.
- **Faces competition** for use as fertilizer and in bio-composting, adding complexity to procurement.

Sugarcane Production in India:

- **Key sugarcane-producing states:** Uttar Pradesh > Maharashtra > Karnataka > Tamil Nadu > Bihar.
- These 5 states produce about **440 million tonnes sugarcane**, out of India's overall **sugarcane production**, i.e., **495 million tonnes in 2022-23**.
- **Uttar Pradesh** and **Maharashtra** are the primary sugarcane-growing states and contribute to approximately **65%** of the total **sugarcane cultivation area**.
- India's **sugar production** was **32.74 million tonnes** in the fiscal year 2022-23.