Process improvements in Khandsari (cottage sugar industry) in India

Title: Process improvements in Khandsari (cottage sugar industry) in India

Authors: AVINASH KUMAR AGARWAL (1); SHARMA Mukesh (2); TEWARI L. P. (3)

Affiliations:
(1) Department of Mechanical, Indian Institute of Technology, Kanpur, INDE
(2) Department of Civil Engineering, Indian Institute of Technology, Kanpur, INDE
(3) National Sugar Institute Kanpur, Kanpur-208 016, INDE

Abstract:
India is the birthplace, where the small scale Khandsari (sugar) industry was born and developed into a modern industry. The Khandsari sugar production, which was originally confined to the State of Uttar-Pradesh only, is now spread all over the country. It occupies an important place in the country's sugar economy. Around 45-50% of the total sugar cane produced in the country is absorbed by the Khandsari industry which provides employment to about 2.5 million people. The brief manufacturing process includes cane crushing by mechanical rollers, concentration of cane juice (through boiling), crystallization, extraction of sugar in centrifuge and sugar drying. The byproduct bagasse, is burnt in furnace to provide heat for boiling the juice. There has not been much organized effort to modernize or improve the manufacturing process in the Khandsari industry. It was only recently that three institutions, Indian Institute of Technology Kanpur, National Sugar Institute, Kanpur and Central Pollution Control Board, Kanpur have taken up the task of improving manufacturing process and reducing the pollution. This paper specifically presents historical manufacturing process and the improvements carried out in the process for increasing sugar recovery. Some of the improvements are already adopted by the industry, while some are under various stages of implementation. The modernised process has helped to increase sugar recovery from 5.5 to 7.5%

Review / Journal Title
International sugar journal

ISSN 0020-8841  CODEN ISUJA3

Source / Source
2004, vol. 106, n°1262, pp. 94-100 [7 page(s) (article)] (5 ref.)

Language / Language
Anglais

Publisher / Editeur
Informa, London, ROYAUME-UNI (1899) (Revue)

Keywords / Mots-clés anglais
Asia
Process improvements in Khandsari (cottage sugar industry) in India