

Spoilage of sugarcane juice a problem in sugarcane industry

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■ **ABSTRACT** : Sugarcane juice deterioration in the factory storage pile, or during factory milling processes, has become a topic of major concern in recent years, where mechanical harvesting of billeted sugar cane has increased dramatically. Sucrose destruction reactions in cane deterioration include chemical (acid) and enzymic inversion reactions, and those from microbial activity, and can be influenced by sugarcane health and environmental conditions. Sugar technologists (Eggleston *et al.*, 2001a and b; Lionnet, 1996; Morel du Boil, 1995) have reported a variety of sugarcane deterioration products to confirm cane deterioration and delay (cut-to-crush time), which have been used to predict and control processing problems at the factory. Such deterioration products have included high invert concentrations, microbial (yeast, bacteria, and fungi) contamination (e.g. ethanol and lactic acid concentrations) and polysaccharides. In addition, the consumption of sugarcane itself as sugarcane juice is very popular because it is considered a refreshing and energizing drink, which is sold in restaurants, supermarkets, trailers, and kiosks. This drink is also quite common in other countries, such as Malaysia (Qudsieh *et al.*, 2002), India (Shinde *et al.*, 2010) and Cuba (Alonso Pippo *et al.*, 2007). However, processing and marketing of sugarcane juice is limited by its rapid deterioration (Prasad and Nath, 2002; Yusof *et al.*, 2000). Aim of this review paper was to discuss different technology to stabilize sugarcane juice.

■ **KEY WORDS** : Spoilage of sugarcane juice, Deterioration, Presentation of sugar cane juice

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