

SCREENING OF SUGARCANE GERMPLASM FOR TRAITS RELATED TO DIVERSIFIED USES

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Abstract: Sugarcane has diversified uses; apart from sugar and jaggery extraction, it is being used for cogeneration and ethanol production. Germplasm is the basic raw material with repository of beneficial traits. Constant evaluation and characterization of the existent, yet uncharacterized germplasm is useful and is the cornerstone for the development of new and better varieties. A systematic study was conducted to evaluate one hundred and thirty one germplasm accessions including four checks for quality and yield attributes. All the varieties varied greatly for different traits. Germplasm accessions possessing traits related to diversified uses were grouped and elucidated. The accessions; 2003T129, 2005T16, 2005T50, 86V96, 2003T123, 95V74, 2006T36 and 2006T3 were found to possess characters that are considered for promotion of varieties for improving cane and CCS production and the accessions; 85R186, 97R383, BO91, 93R113, 97R7, 83V288, 97R424, 2000A213, 2002V2, 94A73, and 2005T89 were observed as reservoirs for production of promising sugarcane varieties suitable for cogeneration and paper making purpose. The genotypes, 2006T3, 2005T50, 93A145, 97R272, Co1148, 87A298, 2005T52 and 2004T68 can be exploited in breeding programmes for production of ethanol efficient varieties.

Keywords: Sugarcane, Germplasm, Cogeneration, Paper making, Ethanol

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