D-31 : ISOLATION AND CHARACTERIZATION OF ACETIC ACID BACTERIA IN WASTE SUGARCANE JUICE AND THEIR EVALUATION FOR ACETIC ACID PRODUCTION

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Acetic acid bacteria present in fermenting Sugarcane juice, waste molasses, rotting fruits and fermenting coconut sap were isolated on special nutrients media. Isolates were purified and initially identified to Generic level and then to species level using the standard laboratory methods. Then the isolates were evaluated for their acetic acid production capability from fermenting sugarcane juice containing different concentrations of alcohol.

It was found that the isolates were a mixture of *Acetobactor* and *Gluconobactor*. The most prominent acetobactors were, *A. aceti, A. xylinium* and *A oaradoxium*. Majority of the isolates belong to the spp. *A. xylinium*.

The acetic acid production of *Gluconobactor* isolates were highly variable and the isolates SL-SRI-C-300, 303, 333, were the best among the isolates and produced 9%v/v, 6.6%v/v and 5.7%v/v acetic acid respectively.