PRODUCTION OF BIO ETHANOL FROM PINEAPPLE (Ananas comosus) PEELS

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Final Year Project Report Submitted in Partial Fulfilment of the Requirements for the Degree of Bachelor of Science (Hons.) Plantation Management and Technology in Faculty of Plantation and Agrotechnology University Teknologi MARA

JULY 2015

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ABSTRACT

Production of Bio Ethanol from Pineapple Peel

Production of bio ethanol from waste was new alternative to reduce the production cost and avoid competing with human food supply. Produce bioethanol from the pineapple peel was alternative to reduce costs reduction and avoid competing with human food supply. Pineapple was left for one week after buy to be overripe before peeling. Juice peel pineapple was extracted and directly fermented for four days with three different treatment; *Saccharomyces cerevisiae*, *Ragi Tapai* and combination of *Ragi Tapai* with *Saccharomyces cerevisiae* in an incubator shaker at 100 rpm with temperature 28°C. The pH of juice was adjusted to be pH 5.5 by NaOH that suitable for yeast growth. The result was shown the percentage of sucrose content of the sample. The high of sucrose content at sample affected by treatment *Saccharomyces cerevisiae was* 3.2575% v/v. The lowers of sucrose content at sample effected by treatment combination *Ragi Tapai* and *Saccharomyces cerevisiae* was 2.6444% v/v. Based on the result, the higher of percentage ethanol at sample affected by treatment *Saccharomyces cerevisiae* was 1.6% v/v.