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POTENTIAL OF AGRICULTURAL WASTES FOR GLUCOSE PRODUCTION

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In addition, this study is in connection with quality and economic potential of agricultural wastes (corn stover, rice straw, sugarcane bagasse and cotton seed hulls), and study of estimated costs of glucose production. The study of quality potential of the agricultural wastes, it is found that cotton seed hulls has the highest cellulose content with 59% and rice straw having the least cellulose content with 33%. As to the aspect of economic potential, rice straw has the highest economic potential due to its abundancy, low price and easy collection, cotton seed hulls has the lowest economic potential because of its few quantity and high price. In the analysis of costs of glucose production from the agricultural wastes, it was found out that the cost is very high which is 1341 Bath/kg (from corn stover), 1236 Bath/kg (from rice straw), 1570 Bath/kg (from sugarcane bagasse), 976 Bath/kg (from cottonseed hulls). The market price of glucose is only about 14 Bath per kg, thereby showing that it is not profitable to do glucose production from cellulose. If in the future development in technology is achieved, reducing the cost of production, this study may contribute greatly to economic efficiency.