## ABSTRACT

Sweet potato has great potential for biofuel production. Processing sweet potatoes to turn starch into sugars and fermenting it can make an ethanol. This study focuses on using Bengueta and Haponita varieties of sweet potato for production of biofuel. The two varieties were compared based on the amount of ethanol produced. The researchers obtained approximately the same amount of ethanol from two varieties of sweet potato which was mainly due to same contents of fermentable sugar in sweet potatoes and the result shows that there is no significant difference between the two. Ethanol productivity was the same from different varieties since the plants were at the same conditions.