

# **EFFECT OF FERMENTATION CONDITIONS ON ALCOHOL PRODUCTION FROM SWEET POTATOES**

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## **ABSTRACT**

Fermentation is a metabolic process which involves the microbial degradation of sugars, resulting to the conversion of sugar to acids, gases and/or alcohol. It is also used more broadly to refer to the bulk growth of microorganisms on a growth medium. This research project was carried out to produce ethanol from two locally available varieties of sweet potatoes within Nigeria (Carolina Ruby and O'Henry) while varying the fermentation parameters such as temperature, time and mass ratio of yeast to potato. The ethanol produced from each experiment was then titrated to calculate the amount of ethanol produced (in percentage) in order to discover the most efficient temperature, time and mass ratio of yeast to potato for the fermentation process within our country. From this study, the most efficient fermentation conditions have been established i.e. 48 hours fermentation time, fermentation temperature of 35oC and a mass ratio of yeast to potato that would not be oversaturated on the potato mash.