Abstract
Agave cocui is a plant that grows in semi arid zones in the south of Falcon State, Venezuela. This plant is being exploited to the production of cocuy liquor. However, this beverage is produced traditionally without quality control. Actually, there is an interest in the investigation of the production process of the cocuy, with the intention to authorize its production and consumption. The fermentation process of agave juices has been not studied and this process is carried out by a traditional method. In this work two natural fermentation processes were evaluated through the determination of several physico chemical parameters. The parameters evaluated in the must of agave during four days were: temperature, pH, density, total solids, dissolved solids, volatile acids, amoniacal nitrogen, totals sugars were volatile compounds, and ethanol. There sults showed that the consumption of sugars were between 85.9% and 87.2% even though the temperature of the studied process had not been controlled. The ethanol contents produced were 7.85% and 5.59% with a yields of 86.3% and 67.2%.

Keywords
Agave cocui must, fermentation process, physicochemical parameters.