To educate the efficiency of *Spirulina platensis* for treatment the wastewater from traditional alcoholic beverage by increasing the *Spirulina platensis* density. Having an initial density value in 10% 20% and 30% respectively. Wastewater characteristics of traditional alcoholic beverage when alum-precipitated were investigated as follow: COD concentration was 680 mg/l ammonia-nitrogen was 9.850 mg/l nitrate was 0.192 mg/l and total phosphorus was 5.635 mg/l. From experiment in different *spirulina platensis* density discovered that the density of 30% had highest treatment efficiency as the period of time increases. The efficiency indicated as follow: the value of COD 86.03% ammonia-nitrogen 52.74% nitrate 41.41% and all total phosphorus 52.55% respectively. The studying in quantity of essential nutrients build the progress of *Spirulina platensis* in the wastewater from traditional alcoholic beverage factory in an outdoor state found that the quantity of essential nutrients were NaHCO₃ 7 g/l K₂HPO₄ 0.4 g/l NaNO₃ 1.3 g/l and NPK fertilizer 0.6 g/l, when experienced with an experimental formula for 22 days then analyzed the nutrition in protein quality found that there was the protein 41%. Growing without nutrients addition had the protein 28.8%