**Carbohydrate Lab Marcus Stevens February 1, 2016**

In this experiment, the carbohydrate that yeast is most capable of metabolizing was tested. These effects were tested with glucose, fructose, galactose, sucrose, maltose, lactose, starch, and water to acquire the most accurate results. Yeast can metabolize carbohydrates is two ways, aerobically, with the help of oxygen, and anaerobically, without oxygen. Although the aerobic fermentation with carbohydrates is more efficient, this experiment was performed in an anaerobic environment.

According to the data recorded, the fructose had the most significant affect when amalgamated with yeast. Fructose and glucose produced the largest amount of Co2 in comparison to the other carbohydrates. The reason behind this outcome is that since fructose and glucose are monosaccharides, they have a head start in producing Co2 unlike the sucrose, starch, lactose, and maltose which are more structurally complex. Specifically, the fructose and glucose do not to take any time to be broken down into simple sugars because they are already simple sugars. However, sucrose is a disaccharide that has to take time to break down into sucrose and glucose. Therefore, it reduces the production of Co2 in that given time. The reason why fructose secretes Co2 better than lactose is because the enzyme required to break down the lactose is not present in yeast. Therefore, there was very little Co2 produced.