

Manipulating Microbes

Research Question and Hypothesis

What is the ideal type of sugar for yeast growth?

Sucrose will be the best form of sugar for yeast growth because it's a disaccharide so it's complex. The complexity is just the right amount, because carbohydrates are too complex.

Background and Introduction

In order for yeast to grow it needs to be activated. The ingredients required for yeast activation are sugar and oxygen. There are three main types of sugars monosaccharides, disaccharides, and polysaccharides (starches).

Materials Required and Budget (add lines as needed, delete unnecessary lines)

Quantity Needed	Item Description	Source	Cost/Item	Total Cost
4	Petri Dishes with Agar			
1	Balance			
	Yeast			
	Granular Sugar			
	Corn Starch			
	Brown Sugar			
	Parafilm			
5	Spoons			
	Distilled Water			

Safety

Wear safety glasses, lab apron, and disposable gloves.

Methods and Procedure

1. Label Petri Dishes according to each sugar source and a control
2. Mix yeast and water and put each petri dish

3. Add appropriate sugar to each dish
4. Seal each petri dish with parafilm and place in incubator
5. Monitor results

Data Analysis

Data will be monitored on Day 1 and 3. We will look for yeast growth/activity and record in data table.

Expected Results

Our hypothesis predicts sugar will be the most productive resources. If results are skewed we may increase quantities of sugars or water. We could also adjust base temperature of incubator since that is a sensitive factor as well. Our hypothesis will be proved by the amount of yeast growth.

References

Course Textbook