



CALIFORNIA STATE SCIENCE FAIR 2016 PROJECT SUMMARY

Name(s) Milena Novakovic	Project Number 36798
Project Title The Magic of Yeast	
Objectives/Goals The goal of this study is to see how different amounts of yeast affect the rising of bread dough. Methods/Materials Flour, salt, yeast and warm water, mixing bowl with units on the side, mixing spoon, teaspoon measuring tool, measuring cup, oven Abstract Remark: All the measurements are expressed in milliliters because I measured the volume for the ingredients, not the mass. If I used a scale I would have had to measure in grams for mass. Results The case with 7.5 mL yeast always grew closer to the case of 10 mL yeast in volume, than to the case of 5 mL yeast. This means that the addition of more yeast does not proportionally cause the dough to rise. After a certain point adding more yeast won't affect the growth of the dough. The case of 7.5 mL is the most productive for baking bread. Conclusions/Discussion My hypothesis states that all of the dough will grow the same amount, which didn't happen in the experiments. The case with the most yeast grew the most because it produced the most CO ₂ faster than the others. I used the same amount of flour which means that the same amount of sugar was used in each mixture for the yeast to consume. However, in the 1st hour and 20 min not all of the sugar was consumed, by the yeast. So the case with the 10 mL of yeast consumed most of its sugar in the allowed time and therefore generated the most CO ₂ . Because of the practicality of this experiment I could not wait any longer for the proofing time. If I had, my hypothesis might have been correct. This is because if all the sugar was consumed for all three cases the size after proofing could be the same; Meaning the yeast would have consumed all of the sugars having them all come to a similar height. In the end, when all the baking is done most of the bread is similar in volume. Also, when I cut the bread open, bubbles from the CO ₂ were similar in size and amount.	
Summary Statement I studied how different amounts of yeast affect the rising of bread dough, I discovered that the middle case of yeast was the most productive.	
Help Received I did the project by my self, but my father taught me the importance and ways of data organization.	