



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Chingiz Bigalimov	Project Number S0402																																										
Project Title Can Garlic Prevent the Fungi Growth?																																											
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Hypothesis: If I add Garlic to a fungi solution (Saccharomyces Cereviae), then the fungus will grow slower or stop growing at all.</p> <p>Methods/Materials Materials: Garlic Extract (500 mg x 100 soft capsules. Other ingredients: soybean oil, gelatin, glycerin, silica. Each capsule contains the equivalent of 500 mg of fresh garlic); Saccharomyces cereviae; Sugar; Pipettes; Scale; 20 x 10ml Graduated Test Tubes (10 tubes per control group and 10 tubes per experimental group); 1 x 20 ml Graduated Test Tube; Digital Camera; Equipment to measure the release of CO₂; basin filled with water; test tube on ring stand clamp fixed on the edge of the basin; 20 ml graduated testing cylinder to gather and measure the released gas; plastic tubing (approximately 1 foot long).</p> <p>Results Measurement of CO₂ Produced (ml)</p> <table border="1"><thead><tr><th>Tube #</th><th>Control Group</th><th>Treatment Group</th></tr></thead><tbody><tr><td>1</td><td>2</td><td>6</td></tr><tr><td>2</td><td>3</td><td>5</td></tr><tr><td>3</td><td>4</td><td>5</td></tr><tr><td>4</td><td>2</td><td>4</td></tr><tr><td>5</td><td>3</td><td>4</td></tr><tr><td>6</td><td>2</td><td>5</td></tr><tr><td>7</td><td>3</td><td>3</td></tr><tr><td>8</td><td>2</td><td>5</td></tr><tr><td>9</td><td>2</td><td>4</td></tr><tr><td>10</td><td>3</td><td>4</td></tr><tr><td>Mean</td><td>2.6</td><td>4.5</td></tr><tr><td>Standard Deviation</td><td>69.92%</td><td>84.98%</td></tr><tr><td>Variance</td><td>0.49</td><td>0.72</td></tr></tbody></table> <p>Conclusions/Discussion My experiment did not support the hypothesis that Garlic extract could prevent the fungus growth; the amount of CO₂ produced in the fermentation process was higher in the treatment group compared to the control group.</p>		Tube #	Control Group	Treatment Group	1	2	6	2	3	5	3	4	5	4	2	4	5	3	4	6	2	5	7	3	3	8	2	5	9	2	4	10	3	4	Mean	2.6	4.5	Standard Deviation	69.92%	84.98%	Variance	0.49	0.72
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Summary Statement The purpose of my experiment is to test if garlic could prevent the fungi growth as it has been claimed in some scientific research.																																											
Help Received Dr. Debra Mauzy-Melitz at University of California, Irvine and my mom helped me																																											