



**CALIFORNIA STATE SCIENCE FAIR  
2008 PROJECT SUMMARY**

<b>Name(s)</b> <b>Eli W. Erlick</b>	<b>Project Number</b> <b>J1409</b>
<b>Project Title</b> <b>The Effect of Cinnamon on E. coli Growth</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective of this project is to test the effectiveness of cinnamon on reducing the growth of E. coli in apple juice using an amount of cinnamon which allows the apple juice to taste pleasant. <b>Methods/Materials</b> Four samples were tested one with apple juice; one with apple juice and cinnamon; one with apple juice and E. coli; and one with apple juice, E. coli and cinnamon, They were allowed to incubate and then were plated on to petri dishes and allowed to grow. The growth was measured by taking photographs and calculating percent plate coverage using the program Adobe Photoshop. The experiment was repeated for a total of three trials. <b>Results</b> Overall the apple juice with cinnamon solution had less growth of E. coli than the solution with apple juice only. <b>Conclusions/Discussion</b> Cinnamon does suppress the growth of E. coli in apple juice and may be an effective preservative in this food. This may be useful for both the developing world as well as the organic food industry.	
<b>Summary Statement</b> The ability of cinnamon to suppress the growth of E. coli in apple juice was evaluated and it was found that a solution with E. coli, apple juice, and cinnamon had less E. coli growth than a solution with apple juice and E. coli alone.	
<b>Help Received</b> Dr. Carla Longchamp helped me analyze my data.	