



**CALIFORNIA STATE SCIENCE FAIR  
2008 PROJECT SUMMARY**

<b>Name(s)</b> <b>Jesse A. Most</b>	<b>Project Number</b> <b>S0509</b>
<b>Project Title</b> <b>Coffee Darkness</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective to my experiment was to discover the optimum grinding time of coffee beans to make the darkest coffee within a given percolation time. <b>Methods/Materials</b> The way in which I measured this was I shot a laser beam through a coffee sample and into a solar panel. Then I measured the millivolt output of the solar panel to see how dark the coffee was. Materials: coffee beans, coffee maker, coffee grinder, water, laser pointer, solar panel, voltmeter, plastic transparent container <b>Results</b> I discovered that at approximately 12 seconds of grinding time the millivolt output of the solar panel was virtually unmeasurable as it was about 4 millivolts which is such a tiny amount. That trial did however comply to the 5:00 minute percolation time maximum as well. <b>Conclusions/Discussion</b> This experiment was one designed to benefit the food market and in particular the coffee industry by providing research on how coffee bean grinding times affect the flavor and darkness of coffee. Also, the percolation times are also a key aspect in how this project can benefit the coffee industry. The percolation data which I composed show what the optimum percolation times are for various darknesses of coffee. I think that this experiment can be very useful, and I hope to follow my fascination with the food science field in the future.	
<b>Summary Statement</b> My experiment is designed to gather information and data about coffee bean grinding to benefit the coffee industry in the world.	
<b>Help Received</b> No help received	