



**CALIFORNIA STATE SCIENCE FAIR  
2011 PROJECT SUMMARY**

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<b>Project Title</b> Biogas	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The purpose of the experiment was to determine which type of biomass created the most biogas. The experiment consisted 5 types of biomass, dead plant material, grass clippings, cow manure, chicken manure and food scraps.</p> <p><b>Methods/Materials</b> Built 5 digesters using 20Lt collapsible water containers with miscellaneous fittings. Each digester was partially filled with biomass and water. the air was then removed to create anaerobic digestion.</p> <p><b>Results</b> The Food scraps created the most biogas.</p> <p><b>Conclusions/Discussion</b> The food scraps must have the most active nutrients so to produce the greatest amount of biogas.</p>	
<b>Summary Statement</b> The experiment is to test 5 different biomass materials to determine which produced the most biogas.	
<b>Help Received</b> Dad helped built digesters and supervise my measuring the biogas produced. He also helped burn off the biogas	