



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

Name(s) Matthew R. Howard	Project Number J1621
Project Title Roosters Rule?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Determine whether or not fertilizer added to garden soil will contribute to a greater harvest. Evaluate two types of organic fertilizer - chicken and steer manure.</p> <p>Methods/Materials Radish and onion seeds were planted in three different containers. One container was filled with a premium garden soil, another was filled with the same soil mixed with a little steer manure and the last container was filled with the same soil mixed with a little chicken manure.</p> <p>Results The radishes were harvested from each container. The radishes from each container were counted and weighed. The container with the chicken manure out produced the other two containers by a ratio of at least 1 1/2 to 1.</p> <p>Conclusions/Discussion The harvest from the container with chicken manure out produced both the garden soil only and the garden soil with steer manure. Chicken manure has twice the amount of nitrogen and 4 times the amount of phosphorus than steer manure. These nutrients are essential for plant development and growth from seed to harvestable vegetables.</p>	
Summary Statement Garden soil mixed with a small amount of chicken manure will out produce soil alone and soil mixed with steer manure.	
Help Received My parents helped with a small amount of computer work.	