



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Eric H. Sorensen	Project Number J1924
Project Title Can Bees Be Trained to Find Key Ingredients of Methamphetamine?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The goal for my project was to train bees to find key ingredients of methamphetamine.</p> <p>Methods/Materials I trained the bees to associate the smell of ammonia or Actifed (cold medicine containing pseudoephedrine) with sugar syrup. Trained bees were tested to see if they could find the target scent hidden among seven identical boxes. Next I tested the bees using an unfamiliar container filled with the target scents to see if they could find it at various distances from the hive. I repeated both these tests with the untrained bees as control.</p> <p>Results In the box test trained bees found the target scents 100% of the time(the untrained 0% of the time). Trained bees found ammonia 100% in the unfamiliar container test. The bees trained to actifed found it 30% of the time (Untrained bees found it 0% of the trials).</p> <p>Conclusions/Discussion My conclusion is that trained bees can find key ingredients of methamphetamine.</p>	
Summary Statement My project is about training bees to find methamphetamine.	
Help Received Mother showed me how to handle bees, supervised grinding of methamphetamine(made sure I wore gloves and face mask) and did some typing on the procedure.	