



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Joseph G. Chernabaeff	Project Number J1706
Project Title What Effect Will the Plant Hormone Naphthyl Acetic Acid Have on Seed Germination?	
Objectives/Goals The question is what effect will the plant hormone naphthyl acetic acid have on seed germination?	
Abstract	
Methods/Materials 1. Plant grass seeds in soil in small bowls. Repeat 10 times 2. Add 30cc of tap water to 5 of the bowls 3. Add 30cc of water with 1/16 of a teaspoon of naphthyl acetic acid to the remaining bowls. 4. Place in room with regular sunlight 5. Water as steps 2 and 3 state three days	
Results The results are as follows: Seed dish number one and two with plant hormone were at the full size at day fifteen with very green and thick blades. Seed dish number one and two with only water took twenty-one days to be at full growth or four inches. Note: This is the results for the first time this project was done. I am in the middle of the next project which has more tests and repetitions.	
Conclusions/Discussion My hypothesis was correct because the seeds with the plant hormone naphthyl acetic acid did increase the rate at which the seeds germinated. The seeds with the hormone grew faster because of the hydroxamic acid vitamin B1 that it contains. The hydroxamic acid makes the plant cells enlarge, therefore the plant grows larger faster. The vitamin B1 made the seed crack its outer shell and begin to sprout at a faster rate. The results showed that the hormone made the seed sprout and grow faster.	
Summary Statement Investigating the effect of the plant hormone naphthyl acetic acid on seed germination.	
Help Received Mother helped set up display board	