



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

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| Name(s) Hailey A. Camillone | Project Number S1405 |
| Project Title Stop Contagious Conidia on Cucurbits | |
| Abstract Objectives/Goals My experiment was performed to find the best topical application, among Sulfur, Sodium Bicarbonate, and Trichoderma, in prevented the onset of powdery mildew on cucurbits. Methods/Materials I grew 40 squash plants and moved them into a greenhouse. I separated the pots into test groups, A, B, C, and D. Within each test group I labeled the plants either 1, 2, 3, or 4. The 1 pots were given no application, the 2 pots were sprayed with a sulfur/water solution, the 3 pots were sprayed with a Sodium Bicarbonate/water solution, and the 4 pots were sprayed with a Trichoderma/water solution. Then I infected all the plants by sprinkling them with powdery mildew from an infected leaf. I let it grow and measured the results. Results Sulfur was 82% more effective in preventing the onset of powdery mildew than the control. It was 78% more effective than the Sodium Bicarbonate and 85% more effective than the Trichoderma, which is highly significant. Sodium Bicarbonate was only 4% more effective than the control and 5% more effective than Trichoderma, which is insignificant. Conclusions/Discussion Sulfur is the best topical application in preventing the onset of the powdery mildew, Sphaerotheca fuliginea, among Sulfur, Sodium Bicarbonate, and Trichoderma. | |
| Summary Statement My project was performed to find the best topical application in preventing the onset of powdery mildew. | |
| Help Received Neighbor provided information and infected leaves; S. Koike provided greenhouse space and lab equipment | |