

CWSF 2010 - Peterborough, Ontario



Shubham Talwar

Hyper Heartbeat: Fertilizer Freakout

Division: Life Sciences

Category: Intermediate

Region: Lethbridge

City: Lethbridge, AB

School: Winston Churchill High School

Abstract: The effects of common fertilizer compounds on the heart rate of *Daphnia pulex* were determined. The compounds identified were: potassium hydroxide, ammonium nitrate, and phosphoric acid. Potassium hydroxide and phosphoric acid had a very ill effect on the *Daphnia*, causing their heart rate to slow down significantly, or even kill them. Ammonium nitrate, on the other hand had no significant effect on the micro-organisms.

Biography

Hello, I am Shubham Talwar. I am 15 years old, and am a student at the Winston Churchill High School in Lethbridge, Alberta. I live with my two parents and my sister. I am really interested in science, especially chemistry and biology. I play the flute, and am in the grade 9 band and the concert band in my school. I am also involved in Air Cadets in Lethbridge. I attended the CWSF last year in Winnipeg, and managed to win a silver medal, a cash prize, and a \$1500 scholarship to the University of Western Ontario for my project.

Awards

Value

The University of Western Ontario Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Western Ontario	\$1 000
Bronze Medal - Life Sciences - Intermediate Sponsor: Pfizer Canada	\$300
Total	\$1 300