

## CWSF 2014 - Windsor, Ontario



### Nolan Rockwell

#### Pharmaceutical Pollution and Plants

**Challenge:** Environment

**Category:** Intermediate

**Region:** Calgary Youth

**City:** Calgary, AB

**School:** Westmount Charter School

**Abstract:** The purpose of this project was to determine if four common medications (Codeine, Caffeine, Diphenhydramine, and Oxytetracycline) could harm plants if they got into the water. Both the concentration that has been found in nature and an elevated concentration were tested. It was found that pharmaceuticals, even in low concentrations, can adversely affect plant growth, although some antibiotics increase growth at concentrations found in nature.

#### Biography

My name is Nolan Rockwell and I am a 14 year old from Calgary, Alberta. I got my idea for this experiment when I discovered that very little has been done to test the effects of pharmaceutical pollution on plants. I have been in four Calgary Youth Science Fairs. I have always been interested in science. I collect vintage fire extinguishers, launch model rockets, and geocache. I do a lot of volunteer work and have been selected to join the Calgary Fire Cadet program. I am interested in medicine and plan to become a doctor. I am planning to test more aspects of pharmaceutical pollution, if not in the science fair then in my own time. I would recommend to anyone in the science fair to keep doing science fairs in the older grades.

#### Awards

#### Value

Excellence Award - Intermediate - Bronze Medal Sponsor: Nuclear Waste Management Organization	\$100
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$1 100