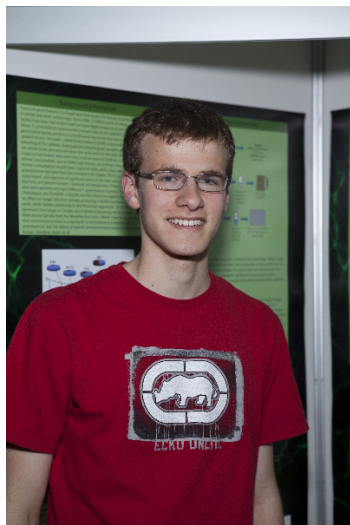


CWSF 2013 - Lethbridge, Alberta



Adamo Young

Emerging Fusarium chemotypes: Threats to Crop Production

Challenge: Resources

Category: Senior

Region: Ottawa

City: Ottawa, ON

School: Lisgar C.I.

Abstract: Fusarium graminearum is a serious fungal pest for wheat and other cereals, as it produces a trichothecene mycotoxin called deoxynivalenol (DON) that contaminates the crop. The trichothecene production and gene expression of three different F. graminearum isolates was assessed under four different environmental stresses. The results suggest that environmental stress initiates different toxin production profiles in the isolates examined.

Biography

I have always been passionate about biology. When I was younger, I used to search for insects in my backyard. I joined the local Nature club when I was 10, and started participating in the Ottawa Regional Science Fair at the age of 12. My past experiments have involved using earthworms for soil toxin detection, analyzing the behaviour and navigation algorithms of earthworms, and exploring the effects of D. insulare parasitism on the food consumption and growth of its diamondback moth host. I received various awards for these projects in the past, including a first and second place. I plan to continue researching pests and biocontrols. I am considering doing field studies, of the diamondback moth or a different pest, during the summer. I am interested in going to university and pursuing a biology career in the future. My advice to other students attempting science fair projects, especially biology projects, is to persevere and be patient. Living things are complex and difficult to predict: there are so many variables that oftentimes it seems that the data being generated is inconclusive and meaningless. After careful experimental design and disciplined execution, accurate and useful results can be produced.

Awards

Value

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	\$100
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$2 100

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