

# CWSF 2017 - Regina, Saskatchewan



## John Poole

### The Effects of Oil on Mycelial Production of Lignin Peroxidase

**Challenge:** Discovery

**Category:** Intermediate

**Region:** Canadian Rockies

**City:** Banff, AB

**School:** Banff Community High School

**Abstract:** This experiment probes how lignin peroxidase (LiP) produced by mushroom mycelia changed in a contaminated environment by growing samples in clean and contaminated substrates, extracting LiP and conducting LiP assays. The results of this project show that methods developed in this experiment could be used on other lignin mineralizing enzymes (LMEs) providing insight into fungal mechanisms in soil science and mycoremediation.

#### Biography

John Poole is a 10th grade honours student at Banff Community High School, Banff, AB. Aspiring to be a scientist, John is also an avid athlete who enjoys tennis, basketball, hiking, skiing and judo. In his spare time, John is active in both community and school theatre and plays trumpet for his school band. John has been interested in environmental stewardship for several years which has led to investigations in mycology. John believes that mycoremediation holds much promise. John hopes his work will lead to further insights into pollutant clean-up by mycelia, and assist in the commercialisation of mycoremediation for reducing petroleum contamination.

#### Awards

#### Value

Excellence Award - Intermediate - Bronze Medal Sponsor: Youth Science Canada	
Challenge Award - Discovery - Intermediate Sponsor: Youth Science Canada	
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
<b>Total</b>	<b>\$1 000</b>