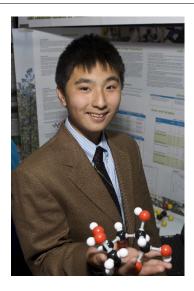




CWSF 2010 - Peterborough, Ontario



Get Into the Spirits

Division: Physical & Mathematical Sciences

Category: Junior

Region: City: School:

Abstract: This project tested for cellulosic ethanol production from BC Mountain Pine

Beetle killed Pinus Ponderosa by acid hydrolysis, steam explosion and fermentation. Ethanol yield was measured by the mass loss of samples over a four-day period, Bromothymol Blue acid indicator and aroma. The experiment results showed all feedstocks produced ethanol, with the green

pine needles producing the most.

Awards	Value
The University of Western Ontario Scholarship	\$1 000
Bronze Medallist - \$1000 Entrance Scholarship	
Sponsor: University of Western Ontario	
Bronze Medal - Environmental Innovation - Junior	\$300
Sponsor: EnviroExpo, Presented by VIA Rail Canada	
Total	\$1 300



