



CWSF 2015 - Fredericton, New Brunswick



Biography

CWSF has led me into the best experiences of my life making science become my ultimate passion. Innovation will always be something I love and will be what inspires me to achieve. I plan to go into Biomedical Engineering at UVIC.

Austin Sawyer

Low Cost Solutions to Improve Tie Longevity

Challenge:	Innovation
Category:	Senior
Region:	Vancouver Island
City:	Victoria, BC
School:	Lambrick Park Secondary
Abstract:	I developed and investigated inexpensive treatments designed to increase wood railway tie longevity. Treatments were chosen to reduce radial splitting, maintain low moisture contents and reduce wood abrasion caused by moving grit in miniature ballast boxes. Ties endured freeze/thaw/heat/soak cycles and the repeated forces of 5 000 trains. Mechanical strength testing showed that three treatments had minimal strength loss and might improve tie longevity.

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



Youth Science Canada PO Box 297 Pickering ON L1V 2R4 www.youthscience.ca / info@youthscience.ca 416-341-0040

