

# CWSF 2007 - Truro, Nova Scotia



## Alice Jourmel

### Mechanical Properties of Hardwoods: A New Test

**Division:** International / None  
**Category:** Intermediate  
**Region:** Vancouver Island  
**City:** Duncan, BC  
**School:** Frances Kelsey Secondary  
**Abstract:** This project assessed the effectiveness of the impact surface hardness test, developed by the exhibitor, as an alternate method of determining the mechanical properties of hardwood specimens. The nature of the relationships between density, modulus of elasticity (stiffness), and impact surface hardness within and between four hardwood species were determined. Clear, positively-sloped, linear correlations were found, confirming the impact surface hardness test's applicability.

#### Biography

I am in grade 10, and attend a self-paced, public school on Vancouver Island, BC. I have been doing science fair projects since I was in grade 1, and this is my third CWSF. I am a member of the Current Global Issues Club at my school, and I am a certified Streamkeeper. I enjoy nearly all subjects at school, but I especially like math and the sciences. As such, I plan to attend university after graduating, where I will get a science degree; I hope to some day receive a doctoral degree. I love to read - comics, blogs, science magazines, non-fiction books, short stories, and novels of all sorts. I also like hiking and running, creating bead jewellery, baking cookies, watching Star Trek (a special treat since we don't have television), and spending time with my family and friends. As well, I enjoy listening to and playing music. I am studying for my grade 6 RCM examination in cello this June, and I have been a member of the Cowichan Valley Youth Choir, which this year was selected to compete at the Provincial Music Festival, for four years.

#### Awards

#### Value

The University of Western Ontario Scholarship Silver Medallist - \$1500 Entrance Scholarship Sponsor: University of Western Ontario	\$1 500
Silver Medal - Physical & Mathematical Sciences - Intermediate Sponsor: Encana Corporation	\$700
<b>Total</b>	<b>\$2 200</b>