

CWSF 2019 - Fredericton, New Brunswick



Erica Forsythe

Medicine in My Backyard

Challenge: Resources
Category: Intermediate
Region: Sunset Country
City: Balmertown, ON
School: Red Lake District High School
Abstract: The purpose of this project is to determine which plants in the Red Lake area have antimicrobial properties. After testing the plants against *Micrococcus luteus*, I determined their effectiveness of killing the *Escherichia coli* and *Lactobacillus casei* bacteria. I discovered the *Escherichia coli* bacteria was resistant to the *Pinus resinosa* and *Picea mariana* needles. Further testing is required to determine the plants' full antimicrobial activity.

Biography

My name is Erica Forsythe and I am 15 years old. I attend Red Lake District High School, which is located in the small mining community of Red Lake, Ontario. My interests include competitive figure skating, curling, badminton, science, writing, and mathematics. One achievement I am most proud of has been placing 1st at the Regional Science Fair four times over the course of five years. When researching what topic of interest to base my science fair project on, I was very fascinated by the concept of bacteria. During the early stages of my project, I discovered there is not a lot of research on plants and their medicinal properties (especially plants that have antimicrobial properties). I was confident that I was able to determine a list of a few plants that grew in Northwestern Ontario, specifically in Red Lake, that had antimicrobial properties. For future science fair participants, I would encourage them to ensure they have a passion for their topic of study. Learning and exploring a topic of interest is a great way to develop a great science fair project. At this time, I would enjoy pursuing a career in microbiology to further expand my knowledge of bacteria.

Awards

Value

Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$2 000