

# CWSF 2013 - Lethbridge, Alberta



## Josie Mielhausen

### Reducing E. coli From The Inside Out

**Challenge:** Resources

**Category:** Senior

**Region:** Bluewater

**City:** Lion's Head, ON

**School:** Bruce Peninsula District S.S. & E.S.

**Abstract:** Food safety is a major issue facing the world today. The isolation of the cyclic terpene, d-Limonene was completed, and its antimicrobial properties were tested against E.coli bacteria. It was concluded that the E.coli pathogen was susceptible to the orange peel extract. The results of this project clearly demonstrate that d-Limonene has the ability to decrease E.coli contamination in beef products both pre-harvest and post-harvest.

#### Biography

My name is Josie Mielhausen and I am a grade 12 student at Bruce Peninsula District School. I live in Lion's Head Ontario, which is part of the Niagara Escarpment, surrounded by the waters of Georgian Bay and Lake Huron. I live with my family on the edge of Lake Huron. I represent my school by competing in athletic events as well as Science and Technology fairs. I am the Environmental Commissioner on my Student Council and I am a member of the Bruce Peninsula Environment Group, the Bruce Peninsula Biosphere Association and the Lion's Head Transition Community. This is my sixth Canada-Wide Science Fair competition.

#### Awards

#### Value

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	\$100
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
<b>Total</b>	<b>\$2 100</b>