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Petroleum Snackers: A Biological Solution to Oil Spills

Division: Engineering & Computing Sciences / None

Category: Senior

Region: Bay Area

City: Brantford, ON

School: North Park Collegiate & Vocational

Abstract: This experiment investigated the different oil-degrading abilities of Pseudomonas bacteria and Penicillium fungus on simulated oil spills. We evaluated bioremediation as a feasible solution to oil spills. We inoculated the oil-covered water with the microorganisms and observed how they altered the physical characteristics and diminished the quantity of motor oil. The microbes decomposed the oil best when there was abundant oxygen, fertilizer and higher temperatures.

Biography

I am a grade 12 student at North Park Collegiate in Brantford, Ontario. My involvement with BASEF was my first science fair experience, and I received four special awards, a gold merit award, and contributed to the top secondary school award. Within my school, I have been involved with varsity basketball and volleyball, the Trojan Athletic Committee, Student Voice Group, the "Green It Up" environmental club, and the Bullying Prevention Coalition. As the Co-Chairperson of the Bullying Prevention Coalition, I am also the representative of my school to the Mayor's Task Force on Domestic Violence, and St. Leonard's Youth and Art Advisory Committee. I am also involved in a variety of leadership activities within my school, such as grade eight transition programs, fundraisers, field trips and other special events. I'm passionate about reading, art, history, photography, filmmaking and the environment. After high school, I am hoping to attend university for an Arts and Science program, life sciences, or law. My ultimate goal would be to become involved with environmental legislature at a federal level, as I would love to combine my passions for politics, law, science and the environment to make our country a 'greener' place.