

CWSF 2016 - Montreal, Quebec



Stephanie Miller

Four Minimums with One Maximum

Challenge: Innovation

Category: Intermediate

Region: Cape Breton

City: Sydney, NS

School: Riverview High School

Abstract: Hydroponics is a method of growing plants without using soil. The objective of this project is to see if it is possible to develop a solar-powered system that requires minimal space, water, cost and maintenance while still producing a substantial crop. Throughout the experiment, the amount of work involved, the volume of water used, as well as the productivity of the crop was observed.

Biography

My name is Stephanie Miller and I am a grade 10 student. I am very athletic as I do gymnastics and play tennis. Furthermore, I became a member of team Nova Scotia for gymnastics in 2015. In addition to sports, I am also musical, as I play the piano. In the past, I have also played the guitar, flute and piccolo. Reading is also a passion of mine. Finding an idea for a science fair project is likely the most difficult part. By watching the news and reading articles on droughts around the world, I was inspired to do this science fair project. These news reports led to more research on topics that would soon play a part in the creation of my system. For my science fair project, I designed and tested a solar-powered hydroponic growth system, which provides an alternate method to crop growth in drought-affected climates. To take this investigation further, I would grow crops that have a greater economical value, and reduce the physical space required for the system. If other students were to do a project, I would advise them to do something that will provide, or lead, to a solution to an ongoing problem.

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