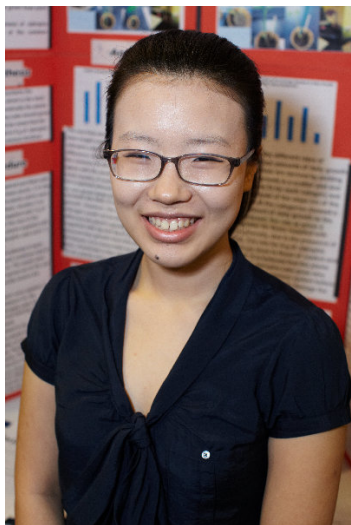


## CWSF 2012 - Charlottetown, Prince Edward Island



### Esther Jang

#### Jatropha Cucas Seed Cake as an Organic Fertilizer

**Challenge:** Environment

**Category:** Senior

**Region:** Bay Area

**City:** Oakville, ON

**School:** King's Christian Collegiate

**Abstract:** This experiment was designed to determine the effectiveness of Jatropha curcas seed cake as fertilizer compared to that of a common, inorganic fertilizer and also the most effective amount of the cake to grow a green bean plant. In conclusion, the common fertilizer was three times more effective than Jatropha cake; 9 g of the cake was the most effective amount among the tested amounts.

#### Biography

I am an international student with English as my second language. I would like to study biomedical engineering in university. Last year, I participated in a science fair for the first time, and to get an idea of how it's done, I looked at the projects done by the students from my school in the previous years. One of the projects that I looked into dealt with Jatropha curcus seed cake, and it brought my attention to the matter. I kept reading about the numerous applications of Jatrophy curcus plant and found out that the cake contains large amount of nutrients; therefore, it has a potential to be utilized as fertilizer. I wanted to do some more research on the matter myself. My project demonstrated that Jatropha cake causes death of green bean plants when used as fertilizer. In the future, I would like to determine what types of plants that the toxic chemicals in the cake have the most deleterious impact on. In addition, I would like to test the use of corn ash which has detoxifying effects in reducing the damage done by the cake to bean plant.

Youth Science Canada  
PO Box 297  
Pickering ON L1V 2R4  
www.youthscience.ca / info@youthscience.ca  
416-341-0040