

## CWSF 2007 - Truro, Nova Scotia



### Nathan Magwood

#### Making \$\$ Green \$\$ from Greenhouse Gas

**Division:** Engineering & Computing Sciences / Automotive

**Category:** Junior

**Region:** Bluewater

**City:** Hanover, ON

**School:** Hanover Heights Community School

**Abstract:** Nine digesters were constructed to test various ratios of cattle manure and corn silage at three different temperatures, to find the most efficient method for methane production. It was concluded that 100% manure was the most efficient way to produce methane at higher (Thermophylic) temperatures. At lower (Psychrophylic) temperatures, it was found that the most efficient ratio was 33% manure and 67% corn silage.

#### Biography

Hello, my name is Nathan Magwood. I was born in Hanover. My parents are dairy farmers in the township of West Grey which is located in Grey County. I have a sister Jennifer and a brother Matthew who are older. I have loved animals such as dogs, cats and calves since I was young. I showed my first calf as a five year old the the Durham Fall Fair in the Junior Calf Club. I have showed a heifer calf every year since and am a member of the Durham 4-H Dairy club. Although I don't play hockey or baseball, I like to read a lot about how each team does. I am told I am the resident hockey expert of the family. Dad, Matthew and I attend a few Attack Hockey Games each year.(OHL) I help out on the farm by feeding cows, calves, doing odd jobs and mowing hay and straw in the summer months. My greatest achievement besides winning first place with 4-H calves is being able to go to Canada Wide Science Fair.

#### Awards

#### Value

The University of Western Ontario Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Western Ontario	\$1 000
Bronze Medal - Automotive - Junior Sponsor: AUTO21	\$300
Total	\$1 300

