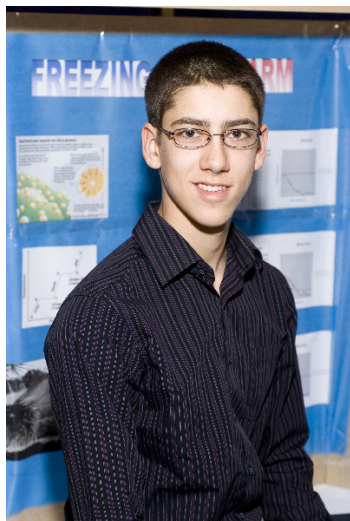


## CWSF 2010 - Peterborough, Ontario



### Joel Karstens

#### Freezing - Warm

**Division:** Health Sciences

**Category:** Intermediate

**Region:** Northwest Saskatchewan

**City:** Wilkie, SK

**School:** McLurg High School

**Abstract:** This experiment was done to prove that the concept of latent heat can be used to protect plants from subzero temperatures. A temperature increase was detected from using the heat from water that is in the liquid-solid phase change to keep a plant's temperature above 0°C.

#### Biography

My name is Joel Karstens. I am in Grade 10 at McLurg High School in Wilkie, SK. My family grain farms near Wilkie, so I have been involved with farming all my life. I currently do many things around the farm to help out, such as operating or fixing machinery and general farm work. I enjoy big game hunting and being outdoors. For the past number of years I have taken karate and guitar lessons. I enjoy athletics, participating in curling, track and field, cross country running, and football. This past year I received Rookie of the Year in football. I have maintained honour roll grades throughout my life. My favourite school subjects are industrial arts, science, and math because they apply to everyday life. I love to build things with my hands and figure out how things work. I am not completely sure what I will take for post secondary education, but I am trying to keep all doors open.

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