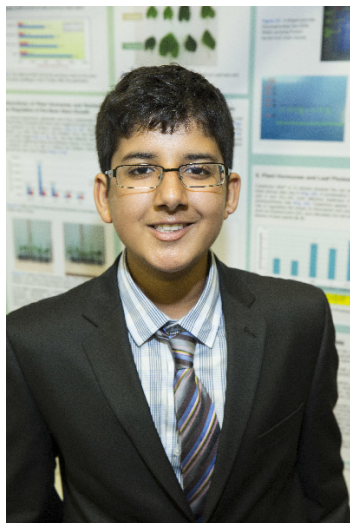


# CWSF 2014 - Windsor, Ontario



## Surat Singh

### Interactions Between Plant Hormones and Nutrients in Relation to Plant Growth

**Challenge:** Environment

**Category:** Intermediate

**Region:** Greater Vancouver

**City:** Burnaby, BC

**School:** Burnaby South Secondary

**Abstract:** My project focuses on how the inorganic nutrients and plant hormones, alone or in combinations regulate the growth and photosynthesis of green bean plants grown in nutrient-poor soil. Gibberellic acid along with the fertilizer mixture (NPK 20-20-20 + bonemeal) enhanced both the stem height and leaf growth. Cytokinins alone or combined with gibberellic acid increased chlorophyll levels and the photosynthesis rate of green bean leaves.

#### Biography

My Name is Surat Singh, I am a grade nine student at Burnaby South Secondary in Burnaby, British Columbia. My Project focuses on the increase and regulation of plant growth, as well as looking at the effects of both internal and external nutrients on the growth of green bean plants. I got the inspiration for my project after noticing that many commercial plant growth mixtures are used to speed up the growth of crops, which made me want to research more in depth about how different types of plant growth mixtures affect both growth and physiological parameters within green bean plants. I enjoy studying science and economics at school and aspire to become a CEO of a biotechnological company one day. If I were to continue my research, I would like to test different types of plant growth mixtures on various types of vegetable crops and see how this would affect the nutritional quality of those specific plants. Since a young age I have been interested in plant biology and believe that the key to being successful science fair projects is choosing a topic that you enjoy learning about and are willing to research in depth.

#### Awards

#### Value

Excellence Award - Intermediate - Bronze Medal Sponsor: Nuclear Waste Management Organization	\$100
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
<b>Total</b>	<b>\$1 100</b>