



**CALIFORNIA STATE SCIENCE FAIR  
2015 PROJECT SUMMARY**

<b>Name(s)</b> <b>Arham Habib; Annie Zhang</b>	<b>Project Number</b> <b>J1815</b>
<b>Project Title</b> <b>Variation of Growth between Genetically Modified and Non-Modified Plants</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The purpose of this project is to contrast the growth of organic, inorganic, and genetically modified plants in different soil types. This includes finding which group of plants (modified or non-modified) grows most consistently and which group of plants matures the fastest, as well as measurement of growth.</p> <p><b>Methods/Materials</b> The materials required for this project are a supply of Organic, Inorganic, and Genetically Modified (Roundup Ready) soybean seeds along with three different soils of a varying nutrient contents.</p> <p><b>Results</b> In this experiment, the inorganic seeds were shown to sprout after organic seeds. After this, they were shown to grow faster, regardless of the soil nutrient content. Due to the lag time in obtaining Roundup Ready seeds, a similar trend of growth can be drawn for the genetically modified seeds, but not much other information as they have not yet had a chance to mature.</p> <p><b>Conclusions/Discussion</b> In this project, it is shown that inorganic and genetically modified seeds follow the trend of sprouting after the organic seeds, but growing at a faster rate. After a period of 9 weeks, it was also shown that inorganic plants mature faster, as they have started to bud while the organic plants have not.</p>	
<b>Summary Statement</b> This project is based on comparing the growth of genetically-modified and non-modified soybean seeds in different soils with varying nutrient contents to see which group generally grows and matures faster.	
<b>Help Received</b> Monsanto gifted their Roundup Ready soybean seeds for experiment; parents helped in purchasing organic and inorganic seeds and soils.	