



**CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY**

Name(s) Adi Shiloni	Project Number J0523
Project Title Healthy Leafy Greens and Chlorophyll	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The title of my project is: Do Healthier Leaves Have More Chlorophyll? I will test the levels of chlorophyll in a few healthy leafy vegetables by extracting chlorophyll from each leaf. The purpose of this project is for me to see if chlorophyll level has anything to do with how healthy a leaf is.</p> <p>Methods/Materials In my study I researched which leafy vegetables are the healthiest. I tested different leafy vegetables including spinach, kale, iceberg lettuce, romaine lettuce, rainbow chard, broccoli leaf, and parsley, for the amount of chlorophyll in each leaf. I tested for the amount of chlorophyll using three different methods, by eye, by TLC, and by a Nano drop. I used the same amount of alcohol for each leaf to make sure that the only thing I change each time is the leaf, which is the independent variable.</p> <p>Results My results showed that there is a correlation between the amount of chlorophyll in the leaves and how healthy they are. I saw that kale and rainbow chard that are the two healthiest leaves had the highest amount of chlorophyll. I also saw that iceberg lettuce which is known as one of the less healthier leaf had just a tiny bit of chlorophyll in it.</p> <p>Conclusions/Discussion The main conclusion from my experiment is that there is a correlation between the amount of chlorophyll in a leaf and its nutritional value. I proved my hypothesis correct because I said that healthier leaves have more chlorophyll and they did. If I were to do this project again I would also add frozen leafy vegetables to see if when you freeze a vegetable does it change the amount of chlorophyll in it and does it change how healthy a leaf is. I would also add a few more vegetables to collect even more comprehensive data.</p>	
Summary Statement Do healthier leaves have more chlorophyll.	
Help Received Grandmother helped use lab equipment at a biotech company PeproTech; Father helped with board.	