



CALIFORNIA STATE SCIENCE FAIR 2012 PROJECT SUMMARY

Name(s) Mika Weissenberger	Project Number J1122
Project Title The Global and Local Burrito: An Analysis of Transportation Carbon Footprint and Price	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of the project was to determine the transportation carbon footprint and price of locally sourced food versus wholesale food using a burrito as example.</p> <p>Methods/Materials A list of the ingredients in a typical burrito (Tortilla, Meat, Beans, Avocados, Cheese, Lettuce, Sour Cream and Rice) was put together and taken to New Leaf (local Community Market) and the Farmers Market to record where the particular ingredient came from and how much it cost. Then the same table was taken to Costco (Wholesale Market) with the same intent. It was relatively easy to find the place of production for the New Leaf/Farmers Market sourced ingredients, however for the Costco sourced ingredients only the distribution centers could be determined (even with extensive online searching which was performed later as well). After the collection of the price and place of production/distribution of the ingredients, the distance it had traveled was determined by using Google Maps. The transportation carbon footprint was then calculated using a) the method in which the ingredient was transported (truck, train, plane), b) the distance that the ingredient traveled, and c) the weight of the ingredient.</p> <p>Results The carbon footprint of the wholesale burrito had a 111x higher carbon footprint than the locally sourced burrito, and the locally sourced burrito was 2.2x more expensive.</p> <p>Conclusions/Discussion The results supported my hypothesis which was that the carbon footprint of the wholesale food would be higher, but the local food would be more expensive. Surprising though was the fact that the carbon footprint of the wholesale burrito was so much higher, and that the Costco meat came from as far as New Zealand and Australia. This science project made me and my family more aware to look where the food we are going to buy actually comes from and I hope it will raise awareness about the carbon footprint of food.</p>	
Summary Statement A comparison of the transportation carbon footprint and price of a burrito with locally sourced ingredients vs a burrito with ingredients sourced from a wholesale store.	
Help Received The assistance that I received on this project was from my mother who drove me to Costco, New Leaf and the Farmers Market. She also read over everything I wrote for the project and gave me feedback. Many Thanks also to Christine Potrero and Volker Enders, for their time answering my interview questions.	