



# Carbon Footprint of Common Foods

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## ABSTRACT

Nearly all of our daily choices affect the amount of carbon that we contribute to the atmosphere. Given recent investigations throughout the world on each country's impact on Global Climate change via carbon dioxide output, students investigated their personal contributions to carbon dioxide output in regards to food choices. Given the short growing season of the North-eastern states nearly all fruits and vegetables were imported from distances as great as 6000 miles (3728 km) therefore acting as the greatest contributors to carbon dioxide emissions contributors amongst the food stuffs investigated.

## METHODS

Nearly 50 students contributed to a food scavenger hunt. Students were asked to go through their pantries in search of one fruit, vegetable, baked good, and snack food. They were then required to report on the location for which the item was shipped. From this point they would generalize the food transport type, either via railroad, air freight, boat, or trucked into New York City. Calculations for each ton-mile were then tabulated.

Miles travelled per food item x transportation type contribution per ton-mile

Truck = 0.3725 lbs. per ton mile  
Air Cargo = 1.7739 lb. per ton mile  
Railroad = 0.2306 lbs. per ton mile  
Sea Freight = 0.0887 per ton mile

## RESULTS

Fruits contributed the most amount of carbon dioxide into the atmosphere primarily because the majority of fruits found within the students' home were from tropical areas and were flown in to New York City. Similarly, vegetables contributed a great amount of carbon dioxide as many vegetables were imported to the North-east from the western United States.

Snack foods contributed significantly less carbon dioxide as a majority of the food items found in the scavenger hunt were from the continental United States. The least amount of carbon dioxide contributed was found to be amongst the baked goods section. The majority of bread, cake and similar products were from in and around the New York City Metropolitan area.

## DISCUSSION

Daily food choices contribute significantly to carbon dioxide emissions. A better choice on highly contributing food products, fruits and vegetables, would be locally grown alternatives. To further a decrease in impact would also be to personally can and preserve such local items when they are in season rather than choosing imported items during non-growing seasons.

## ACKNOWLEDGEMENTS

We would like to thank Ms. Susannah Ceraldi, Academy of Urban Planning High School, and Ms. Kimberly Handle, NSF GK12 fellow from Brooklyn College City-as-Lab.

