

CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

Name(s)

Karen Garcia

Project Number

J2007

Project Title

What Type of Salt Brands with Different Qualities Have the Presence of Microplastics?

Abstract

Objectives My intent was to notice if microplastic particles are present in sea salts of different qualities.

Methods

Gathered salts of different price points. Dissolved 50 grams of each salt in 500 milliliters of water. Vacuum filtration system, filtering the mixture through a pink dyed membrane and examined the filtered product with a microscope.

Results

On my first trial, the highest priced salt, Morton sea salt costs 43 cents per ounce and had the highest amount of microplastics and anthropogenic particles. The cheapest salt, 365 sea salt costs 6 cents per ounce and had the lowest amount of microplastics and anthropogenic particles.

Conclusions

I hypothesized that the most expensive salt will have the least amount of microplastics in the membrane filter because the salt with the higher price will most likely be processed in a way to filter microplastics. Based on results, I concluded that sea salts of any quality or price point have a presence of microplastics.

Summary Statement

I found the presence of microplastics in sea and Pink Himalayan salts, while discovering potential ways to filter microplastics.

Help Received

My science teachers assisted me with the methods of the vacuum filtration system.