

Developing A High Protein Vegan Meal Replacement

Rathod, Vaidehi (School: Chattanooga School for the Arts and Sciences)

I love cooking and experimenting in the kitchen so I decided to do a science project about that. I decided to attempt to create a full food product that is lower in calories, high in protein, 100% vegan, dry shelf-stable, and full of nutrients so that it can be used as a meal replacement. I created and tested many recipes after I made a list of high protein and low calories ingredient combinations. Also, by being vegan this item can be eaten by a wider variety of people such as meat eaters, vegetarians, vegans, gluten free allergies, lactose intolerant allergies, etc. I settled on putting all of this into a 4 oz jar instead of a large, heavy bar. Another thing I focused on was really developing diverse and good flavors so that my jars would be something pleasant for people to eat. One thing I found during this project was that a food product like the one I created could be very useful in food banks and homeless shelters. If I can make this product cheaper than I can distribute more to organizations like these around my community. Since this product is vegan and high in nutrition, it can be consumed by a higher percentage of individuals (especially those with dietary restrictions), than many types of processed and canned foods that food banks normally receive. These meal replacement jars also have a long shelf life from 5 months outside, to almost 8 months refrigerated. Due to the COVID pandemic I was unable to test my jars with people other than myself.