

SEF Final Report

The project I worked on during my time in the SEF program was *The Degradation of Plastic Using Microbes*. In my five hours of lab each week, I was able to learn proper aseptic technique. That included using gloves and sterilizing tools when handling microbes in the laboratory. It was important to perform experiments under the hood when there was a possibility of microbes coming into the environment we were working in and to prevent contamination of our samples.

The main part of my time in lab involved working with LDPE Plastic from petri dishes. We used different sets of medium and carbon sources to test if there was a possibility of adhesion to the plastic with the addition of microbes to the sample. There were steps of the procedure that were important to take in order to see if there was adhesion to the plastic. Washing of plastic with acetic acid after the addition of crystal violet to the microtubes. We were successful in finding some adhesion to the plastic. Adhesion is very important in our experiments, as without adhesion there would not be the possibility to degrade plastic.

I was able to be a part of all of the steps of the experiments. I cut and placed plastic into flasks with microbes and place them in the incubator. It was very helpful for me to take part in these steps of the experiments because it allowed me to see from start to finish the final products of my work.

Overall, I truly enjoyed my time working in the lab through the SEF Program. I have worked with Dr. Grayburn for a year and a half and I have learned a great wealth of knowledge during my time in the lab. I have learned how to become more independent in the laboratory by

taking the initiative to understand the steps of research and that modifications must be made in order to get closer to your goal.