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Bacteria Is It What's For Dinner? Bacterial Growth On Grocery Store Produce

The purpose of this project was to identify how much bacteria is on the produce and in the water at a local grocery store. This benefits mankind by informing people of bacteria growth on produce at their local grocery store. For the project I collected 2 vegetables from each section, top, middle, and bottom. I also collected the water that was sprayed. I poured the agar into the Petri plates. Each vegetable from each section was swabbed with a sterile swab. Then I plated the bacteria. Also .1 milliliter of sprayed water and sitting water was plated. The bacterial colonies were counted with a colony counter. This was repeated twice to obtain 3 trials. I found that the sitting water had the most bacteria with an average of 5,472.7 colonies for all 3 trials. The middle section had the next highest amount of bacteria with an average of 591.64 colonies. The sprayed water was next with an average of 524.27 colonies. Then the top with the average of 188.4 colonies was next. Finally, the least amount of bacteria was the bottom with the average of 157.33 colonies. In conclusion, the sitting water had the highest amount of bacteria as well as the middle section of vegetables. The sprayed water was very close in average number of colonies to the middle section. The top section and bottom section of the vegetables had the least amount of bacteria. Future implications of this project may be to inform public about importance of thoroughly cleaning vegetables before eating to prevent spread of infectious food borne illnesses.