Balloon Bloat

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The purpose of this experiment is to determine which decaying food produced the most landfill gas. The hypothesis of this experiment was that decaying dairy products produced more landfill gas than other foods. Twenty 1-liter bottles were filled with a measured amount of soil. Varieties of food were chopped and measured, then added to bottles. The bottles were sealed with balloons. All the bottles were placed on a table and left at room temperature. The experiment consisted of 4 Groups; dairy, meat, vegetable, fruit, and soil being left to decay for a period of 14 days. During the 14 day period the balloons were visually monitored daily, and inflated balloons were measured in centimeters using a measuring tape to determine their size. In conclusion, the hypothesis was proven to be incorrect by the data collected over the 14 day time period. The results indicate that Group 4, fruits, decayed and produced enough gas to inflate the balloons. The results of the entire experiment indicate that the decomposition of the fruits produced the most landfill gas over the 14 day experiment.

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