The Effects of Gaseous DHP on Fungal Development

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DHP may be a furniture company but the acronym DHP also stands for something much greater. Dilute Hydrogen Peroxide. The machine generates DHP using only electricity and humidity in the air. The peroxide has many benefits including: killing household pests, exterminating disease particles and viruses, and even helping the lungs of humans work more efficiently. We experimented to see how DHP affects mold growth on foods containing and not containing preservatives. In order to test this, we placed: wheat bread, gluten free bread, canned asparagus, asparagus, ham, pork, lemon jelly, lemons, mozzarella cheese, and organic cottage cheese in a room containing the DHP gas. In another room that did not contain DHP, we placed the same foods. We took daily observations and recorded whether mold grew on each food item and how the foods had transitioned through the course of fifteen days. The data collected supported our hypothesis that foods would take a longer time to mold in the environment of the DHP machine. All of the foods except the breads and lemon jelly in the DHP free room grew mold within twelve days. However, in the DHP room, none of the foods grew mold except cottage cheese which took an average of eleven days. Methods for preventing food from growing mold are usually expensive, time consuming, or require many items to function. We discovered a more cost and resource efficient method that people could use to preserve foods longer. Overall, the experiment was successful and supported our hypothesis.

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