

Environment's effect on growth of bread molds



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Molds are species of fungi. There are many different kinds of molds, some of which are specially adapted to grow in particular environments or on particular surfaces. Unlike plants, molds cannot produce their own food, so they need an external source of energy and nutrients. Molds (and mildew) are fungi. Fungi are neither plant nor animal but, since 1969, have their own kingdom.

The fungi kingdom includes such wonderful organisms as the delicious edible mushrooms, the makers of the “miracle rug” penicillin and the yeast that makes our bread rise and our fine wines ferment. Can bread molds grow fast in an open environment? 2. Can bread molds grow fast in a closed environment? 3. How does temperature affect the growth of mold on wheat bread? Prevent mold and mildew? How to The study serves to find out what causes bread molds and specific conditions that contribute to the growth of molds in bread.

We will all benefit from the said study since the experiment will give us the knowledge on how molds on bread can be minimized or if not, avoided. The presence of bread molds will determine if food is consumable and safe, or whether it is already stale. When we come in contact with molds, we ingest substances known as mycotoxins (through our skin, mucous, and airways), which are produced by the bread mold. These are very dangerous for our health. Once inside, they can spread and affect the immune system severely.

These lead to health conditions like allergies, hypersensitivity, respiratory problems (asthma, wheezing, coughing); and some other severe ones like those of memory loss, depression, anxiety and reproductive problems among

several others D. SCOPE & DELIMITATION OF THE STUDY Bread Name:

Francis Bread Through the study, we are able to find out the specific environmental condition that makes molds grow faster. It was also observed that mold breed on dead organic substance. Their presence is only obvious to eyes when large mold colonies develop. Some molds can Deere at a temperature as low as USC.

Molds can survive In a resting state. The observation was done for about 7 to 10 days. But it was observed that there are also came circumstances that do not encourage growth. The plan is to compare in which environment bread molds develop faster. The independent variable for the experiment is light and the dependent variable is bread mold reproduction. A control is a test in which the independent variable is kept constant in order to measure changes in the dependent variable. In a control, all variables are identical to the experimental setup? your original setup? except for the independent variable.

Factors that are identical in both the experimental setup and the control setup are the controlled variables. In several reference materials, we have learned that molds reproduced by producing air borne spores; these microscopic particles are so small they are invisible to the human eye and are found nearly everywhere. (Wisped. Com) When you leave bread out on the counter, spores will land on the bread and given time sufficiently warm conditions will grow into adult fungi. The spores get the energy they need to grow by feeding on the bread.

Breads are also rich in starches, polymers made up of sugar molecules, and other useful nutrients. Just as bread can help supply us with the food we need, it can also serve as food for other organisms like fungi. Water As with all living organisms, bread mold requires water in order to grow and to be alive. Bread mold uses water in many of its chemical processes at the cellular level. Spores Mold spores must be present to grow. Mold spores, ranging from just 3 to 40 microns in size, exist everywhere in the environment.

This milder mold growth is possible in any home when given proper growing conditions. Food Organic substances provide nutrients for mold growth. This makes bread, fruit and other food products the ideal growing environment for mold. Moisture Mold requires water to survive and grow, with the amount varying depending on the mold variety. This is the condition least likely to be present in adequate amounts. However, bread mold has the advantage of being kept in a bag where moisture does not evaporate. Bread naturally contains moisture, providing adequate growing conditions for mold.

Temperature Optimal mold growth occurs in warm temperatures, since enzymes, or the proteins that control chemical processes, work more efficiently when it is warm rather than when it is cold. Mold assessment and mold remediation are techniques used in occupational health: mold assessment is the process of identifying the location and extent of the mold hazard in a structure, and mold remediation is the process of removal and/or cleanup of mold from an indoor environment. Bread gets moldy because it provides a good source of food for some types of fungus.

The air is usually full of tiny mold spores, and under the right conditions, they can settle on nearly any organic substance and start to digest it. In bread, these enzymes break down the cell walls of the organic material making up the loaf, releasing easily digestible, molecularly simple compounds. This is how bread gets moldy. Mold, found on old or unregistered bread, comes from fungi, one of the most ubiquitous and successful Torts AT Tie on ten planet. I newer are cozens AT autonomous AT species, wanly can De found practically everywhere.

Scientists who study fungi, called mycologists, tell say that approximately one out of every 20 living species is a form of fungus. Fungi cannot receive energy directly from the sun because they do not have chlorophyll, and must therefore live off other plants and animals. Some fungi are parasites, actively attacking a host for nutrients. Most, however, are scavengers, turning organic matter into soil. Without fungi, many plants would die, because they require rich soil to thrive. Most fungi tend to be flexible about their food choices.

They feed on a wide variety of organic molecules, and their flexibility is largely responsible for their ubiquity. Fungi produce dozens of digestive enzymes and acids, which they secrete into a material as they grow over it.