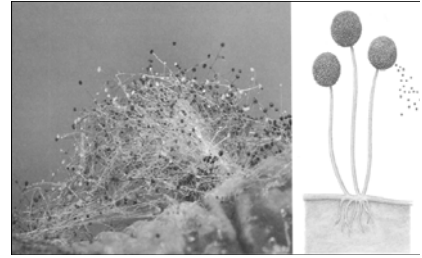


CB 3 Decomposition Through Contamination

What would happen if you left bread out on the kitchen counter for a long time? It might eventually look like the bread in the photo at right. You know that it won't remain intact forever. Eventually, the bread will be decomposed. How does this happen? What physical or biological agents cause this to happen? You will explore these questions in this inquiry.



Materials

- slice of bread
- hand lens or dissecting microscope
- plastic bags or other containers
- Casio QV2800 Digital Camera: Visual images of changes in fermentation tube

Procedure

1. Take a piece of bread and examine it carefully for anything unusual. Make a digital photo of it.
2. Moisten the bread slightly, and touch it to some surface such as the floor, your hand, a wall, or you can just let it sit out in the open for a few hours.
3. Put the contaminated bread into a plastic bag or other container and place it in a drawer or box.
4. Each day thereafter, remove the bread and examine it carefully. Take a digital picture of what you see at different levels of zoom or macro settings.

CAUTION! *If you are allergic to mold, leave the bread in the bag while you examine it. Replace the bread in the bag and continue to observe it for several more days.*

Interpretations

1. What did you observe from a careful examination of the bread or the photo?
2. What process is taking place on your bread?
3. What types of organisms are present?
4. How many days did it take before there were noticeable changes?
4. When and where have you seen this happen before?
5. What conditions are necessary for decomposition to take place?

Applications

1. Give some examples of decomposition that you have witnessed before this inquiry.
2. What products in your local grocery store depend upon decomposition to make?
3. What products in your local grocery store are affected (spoiled) by decomposition?
4. How does your store attempt to prevent spoilage by decomposition?
5. How does your local sewage disposal plant depend upon decomposition?