Biotechnology Lab Report

Lab: Extracting DNA from Bananas and Strawberries

Purpose:

To properly and successfully extract DNA from various fruits using cell disruption and separation techniques.

Materials Used:

2 heavy duty zip-lock baggie
1 strawberry (fresh or frozen and thawed)
1 banana half
10 ml DNA extraction buffer*
2 Coffee filters
Ice cold 95% ethanol
1 small beaker
2 Test tubes
Wooden coffee stirrer

*To make the extraction buffer, 100 ml of shampoo (without conditioner) was mixed with 15 g of NaCl and 900 ml of water.

Procedures Used in Experiment

Once all materials were gathered by group members, each individual group began their experiment. The first step was to place the strawberry or banana in the zip lock bag and smash the strawberry/banana for 2 minutes. The strawberry produced enough juice and water based substance that no added water was needed, however the banana did not produce as much juice and a small amount of water was added. The actual amount of water varied from group to group. The next step involved adding 10 ml of extraction buffer to the bag. This added even more water based substance to the bag of mashed fruit. The bag was then mashed again for one minute to mix in the buffer solution with the existing smashed fruit. The purpose for adding the extraction buffer was to break the cell walls and disrupt the cells so that all the material inside the cell