

Rebecca Morgan

*Some Like It Hot; Cold Has More Value: DNA Analysis of Raw vs. Cooked Food*

The purpose of my project is to prove that the DNA of raw strawberries has more nutritional value than the DNA of cooked strawberries.

The experiment involved cooking the strawberries to an internal temperature of 58 degrees Celsius by boiling, baking and microwaving. I then extracted the DNA, from raw and cooked strawberries, using a lysis solution and alcohol. After purifying the DNA, it was processed through an electrophoresis machine which I constructed. The gels were then removed and stained using Ward's QUIKView DNA stain. This allowed me to view the DNA molecule migration and molecule size by holding the gels up to bright light.

The data I collected supported my hypothesis that the DNA molecules are kept intact when consuming raw strawberries and compromised when consuming cooked strawberries. The raw strawberry DNA molecules were larger and clearer.

These findings lead me to believe that since our bodies require live enzymes, which we receive as a result of consuming live and intact DNA, consuming raw fruits and vegetables gives us more nutritional value and slow down the diminishing of our enzyme potential and therefore extending our life expectancy.