**Strawberry DNA Extraction Protocol**

**Materials and Equipment**

50 mL centrifuge tubes

Styrofoam or plastic cups (8 oz.)

Zip-lock sandwich bags

Bleached coffee filters (white)

95% alcohol (-20 °C)

Whole strawberry

Lysis buffer: detergent

 salt (either iodized or non-iodized will work)

 distilled water

For each 100 mL of lysis buffer, add 90 mL of distilled water, 10 mL of detergent, and 1 teaspoon of salt. Stir the buffer until the salt is dissolved.

**Procedure**

1. Take the leaves off the top of the strawberry and place the strawberry in a sandwich bag
2. Seal the sandwich bag and pulverize the strawberry. Smash the strawberry by hand and then roll a pen or marker back and forth over the bag to make the strawberry as liquid as possible
3. Add 10 mL of the lysis buffer to the bag and reseal
4. Continue to roll the strawberry tissue in the lysis buffer for two minutes
5. Place a coffee filter in an 8 oz. cup
6. Pour the contents of the sandwich bag into the filter—this will take a while due to the viscosity of the mixture
7. Discard the coffee filter and its contents
8. Pour 30 mL of 95% alcohol into a 50 mL centrifuge tube
9. Pour the contents of the 8 oz. cup into the tube, cap the tube, and wait for the DNA to start precipitating out in the alcohol (the process begins almost immediately and the DNA will continue to condense for the next few minutes)