Generation of Energy through Pellet Combustion: Organic Recyclables as a Novel Fuel Source

Carlson, Julianne

Pellet Stoves have been around for many generations. They have generally been using wood as a fuel source. Although wood is a good fuel, this is a negative impact on the environment, and reduces our important tree population. Using wood resources for fuel can be expensive and generate transportation and production problems. It also increases the carbon footprint within the atmosphere. The pellets will be burned in a 3 inch by 3 inch mini stove. For each test 2 grams of pressed pellet will be burned. A lighter will be used to ignite the pellet and will be held on the pellet for 100 seconds. The complete test will last 1000 seconds. To determine the temperature a metal probe will be placed into a vent hole on the side of the stove. This probe will connect to a lap top that records the heat during each test. When testing has been completed data will be graphed for comparison. Test results validated that sunflower was the best heating resource out of the materials used. Following behind by .16J/g/°C was pine. Both had about the same average temperature and had similar heat energy.

Awards Won: