Making Natural Gas From Compost

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The purpose of this experiment was to test what compost variable worked best to produce natural gas. If the amount of methane is dependent on the type of compost, then there will be a measurable difference between the methane production of the composts. Landfill emissions, greenhouse gasses released by compost, and compost benefits were researched on the web. The procedure of this experiment was to first create a “house” for 4 buckets containing a different type of compost each. leaves, food, and cow manure are the variables. The house was created from foam insulation. A hole was drilled into each lid and a steel nipple mamelon was inserted into the lid. A hex nut was attached to the bottom of the lid to secure it. On the upper side of the lid, a metal washer and rubber washer were put onto the steel nipple mamelon before attaching a PVC ball valve. A 2 sided adapter was then attached to the ball valve and the other side connecting to a braided PVC tube. A singular gas detector was used on all of the buckets. For 11 days, the buckets were swirled and measured at day 11. The result of this experiment was that the food bucket produced the most methane out of all of the composts and evidently showed to be the best compost variable. In conclusion, the food compost turned out to be the best methane producer because of its decomposition rate.

Awards Won: