

Haley Hervert

Junior Division Plant Sciences

"A Cup Of Tea Please" Brewing The Perfect Tea For Your Plant

Part One of the experiment is to determine which compost brews the best tea fertilizer. Part Two of the experiment is to determine whether adding oxygen to the brewing process makes a more potent tea fertilizer (aerated vs. non-aerated). To test, 70 bean plants germinated, and 35 plants were used for each part of the experiment. Four compost teas were brewed - alfalfa pellet, dried seaweed, fish pellet, and black tea. For the second part of the experiment, the same teas were brewed with oxygen added. Water was the control. The plants were fertilized three times during the experiment, each time with freshly brewed tea, and measurements were taken for plant height, number of leaves, and number of blossoms. The final plant measurements for the seven trials in each part of the experiment were averaged. The data showed that with the non-aerated teas, the fish tea performed slightly better than the rest of the teas when comparing plant height. With the aerated teas, the fish tea and surprisingly the black tea performed the best. Comparing number of leaves, there was not a big difference between the type of tea or aerated vs. non-aerated, although the aerated tea plant leaves were bigger and healthier-looking. The data from number of blossoms was consistent with all the non-aerated teas, and inconsistent with the aerated teas. In conclusion, the fish pellet tea proved to be a slightly better fertilizer, but the addition of oxygen to the brewing process did not make a bigger impact in this experiment as hypothesized.