

Sophia Conrad
How Rapid Can It Get?

The purpose of this experiment investigates if and how the detergents used (Arm and Hammer, Tide, Purex) mixed in distilled water used to water rapid radish plants can cause the plants to grow rapidly. The rapid radish plants grown with Arm and Hammer detergent were expected to grow more rapidly than the control (plants grown with distilled water), and the plants grown with Tide and Purex detergent. The Arm and Hammer detergent plants were grown in APS growing trays in test group 1 and were watered every 5 days. The Tide, Purex, and control plants were grown in manually watered trays in test group 2 and were watered once a day with .18g/360mL, which is the equivalent of the middle concentration of detergent (.5g/1000mL) used in test group 1. At the end of the 4-week testing period, the rapid radish plants' heights in test groups 1 and 2 were averaged. The data disproved and partially supported the hypothesis. The rapid radish plants grown with Tide and Purex detergent grew 3cm to 6cm taller than the Arm and Hammer detergent plants and the Arm and Hammer plants grew 4cm to 5cm shorter than the control. The hypothesis was correct because the Tide and Purex plants died at the third week of the testing period. The data shows that with further testing a formula similar to the test group 1 and 2 detergents can be created to cause rapid radish plants to go through their life cycles more efficiently than usual.