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Is Eco-Friendly Wallet Friendly?

The purpose of this project is to find out what laundry detergents are most effective while also considering their price per load and their impact on the environment. The detergents we are going to use are Soap Nuts, Dropps, Purex: Ultra Natural Elements, All Tide, and Arm & Hammer. Soap Nuts, Dropps, and Purex are eco-friendly; meaning intended or perceived to have no harmful effect on the natural environment and its inhabitants. The traditionally manufactured detergents are: All, Tide, and Arm & Hammer. The staining products are: mud, coffee, pomegranate juice, ketchup, and motor oil. We decided to do this project to test whether eco-friendly products work as well or better than traditional laundry detergents. Also, we wanted to see if the more expensive products are worth the extra money. We hypothesized that Tide laundry detergent will be most efficient because it disperses quickly, has few suds, and research has shown that it has great cleaning performance. We cut 100% cotton material into 6" x 6" squares. We then applied the staining substances ketchup, pomegranate, motor oil, coffee, and mud. Next we washed the fabric squares in each detergent. We had three trials for each detergent. Our control was cotton fabric with no staining substance. We also washed three trials in just water. We let the stains sit for 22 hours and 45 minutes. Our hypothesis was correct; Tide HE was the most effective laundry detergent. We originally thought that it would be because it has few suds, disperses quickly, and has a high cleaning performance.