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Keepin' It Clean Like a Washin' Machine!

The purpose of my project is to test which material combination removes the most Nitrogen and Phosphorus from laundry greywater. My procedure was:

Step 1: Prepare 1 gallon milk jug to be a filtering container (filter) by cutting off the top and punching holes in the bottom

Step 2: Test original greywater as the control for Nitrogen and Phosphorus

Step 3: Layer filter with cheese cloth, weed mat, sand and gravel

Step 4: Pour 2 quarts greywater through filter

Step 5: Test filtered greywater for Nitrogen and Phosphorus

Step 6: Rinse filter

Step 7: Layer filter with cheese cloth, sawdust, ashes and charcoal

Step 8: Pour 2 quarts of greywater through filter

Step 9: Test filtered greywater for Nitrogen and Phosphorus

Step 10: Rinse filter

Step 11: Layer filter with cheese cloth, terry cloth, cottonballs, and lava rocks

Step 12: Test filtered greywater for Nitrogen and Phosphorus

Step 13: Compare results

My data was: Control had N1 deficient Nitrogen and P3 sufficient Phosphorus. Test 1 had N0 depleted nitrogen and P4 surplus Phosphorus. Test 2 had N2 adequate Nitrogen and P4 surplus Phosphorus. Test 3 had N0 depleted Nitrogen and P1 deficient Phosphorus. My conclusion was that Test 3 acted as the best filter of Nitrogen and Phosphorus for grey water.