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Do Natural Remedies Work for Stream Pollution?

When there are pollutants or waste in our water, the only things we have, to treat the water are harsh chemicals like chlorine. If we could find a natural remedy to "clean" stream pollution, it would not only be better for us as humans, but also for the environment. The purpose of this experiment is to determine which type of natural remedies, orange peels or algae will help clean up stream water with pollutants like Escherichia Coli, nitrates and phosphates. The hypothesis was that the orange peels added into the stream and sewage water would reduce the Escherichia Coli in the water. The procedure involved building a "stream" out of plastic buckets, and have a pump making the "stream" flow. Sewage and stream amounts of phosphates, nitrates and E coli were added to the water. Then algae was added, and samples were taken every 5 minutes over an extended period of time with the algae in the water. Test strips were used to analyze the nitrates in the water, a Hatch Colorimeter to analyze phosphates, and Quanti- Trays using Coli-ert, to measure the E coli present in the water. The stream model was repeated using orange peels instead of algae. The results show that orange peels and algae are not effective at cleaning stream pollution. The hypothesis was that the orange peels would reduce some of the E coli in the stream, but the orange peels didn't affect the E coli at all. The orange peels and algae did not help the nitrates, and the phosphates sometimes varied in results, but in the end the remedies did not reduce the phosphates either.