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*Polyvinyl Chloride, Polypropylene, Polystyrene- Pick your Poison?*

My project's purpose was to figure out if certain plastics, when boiled in water, are harmful to Rudbeckia plants and seeds and an organism called Daphnia. The plastics I used deal with heating human food- #5 plastic Gladware containers, #6 plastic Styrofoam, and #3 plastic wrap. The control was boiled tap water. I boiled the plastic water after measuring each plastic material into three different glass bowls with two cups of tap water- one bowl contained thirty cm of plastic wrap, one bowl had one Styrofoam cup, and one bowl had one Gladware container. For the grown plants, I bought mature Rudbeckia plants and watered each set of them with different water. For the seeds, I planted the same variety of Rudbeckia and watered each set of them with the different waters. All plants were under a grow light. For the Daphnia, a glass bowl of tap water with already strained peat humus in it waited. They swam in this control water for one week. Then I separated eighty Daphnia and put twenty in each of the separate bowls of waters. I recorded the height and appearances of the plants and the activity levels for the Daphnia. I performed each plant test for at least one month. The mature plants didn't seem to suffer but the plastic wrap water killed the seedlings. All three plastic water types killed the Daphnia ... the only Daphnia alive after one day were in the control ... and they lived a full month.