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*Hydroponic vs. Soil*

The purpose of this experiment was to find out if bean plants grow better with hydroponics or with the traditional way of growing a plant. The hypothesis stated that beans grown using soil substitute will have bigger, fuller plants. Six pots were used in the experiment: three filled with potting soil and three filled with soil substitute. A water system was also set up by drilling three evenly spaced holes in the lid of a storage container. The storage container was filled with tap water and liquid fertilizer was added to the water as a nutrition agent for the plants. An air stone was attached to an aquarium air pump and placed in the water. Baskets were then put in the holes in the lid. Bean seeds were placed in each pot and basket. The container and pots were put in a room with grow lights. The pots were watered with a fertilizer mixture each day. The grow lights were turned on twelve hours of each day. This process lasted for six weeks and at the end the seeds results were compared. The data stated that the researcher's hypothesis was accepted. The information gathered from the experiment showed that the plants grown in soil substitute had the largest plants and fullest roots. Because of the results, it is concluded that plants grown hydroponically are a good substitute for growing plants the traditional way.