The Effect of Phosphorus Levels on the Growth of Duckweed

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The purpose of this experiment was to determine the effect phosphorus has on the growth of duckweed in an aquatic environment. The hypothesis was that if increased amounts of phosphorus are added to containers of de-ionized water holding the same number of duckweed plants, then the container with the most phosphorus added will produce the largest increase in the mass of duckweed. The procedure was to set up three sets of containers, each set having: a Control with only de-ionized water; a container with .125 mL of phosphorus solution added; a container with .25 mL of phosphorus solution added; and, a container with .5 mL of phosphorus solution added. The mass of 14 duckweed plants was measured on a special scale, recorded, and the duckweed plants were placed in a container. The same process was followed for the other 11 containers. After 35 days, the duckweed mass in each container was again measured and recorded. The data showed that the more phosphorus that is added, the greater the duckweed growth. Consequently, the hypothesis was supported.

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