Regrowing Lettuce in Different Water Types

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This research studies the effects of three different water types: purified, tap, and lake water on the regrowth of store-bought lettuce stems. Its objective is to identify how water quality, especially the mineral content influences lettuce regrowth, on the root and leaf development over 15 days of period. The lettuce stems were monitored and observed daily for developments in root length, leaf growth, and its overall health, with water being replaced every two days. Purified water produces the best results as it supports both healthy leaf growth and early root progression, along with its roots obtaining 6 cm by day 15. This is most likely due to its low TDS, conductivity, and lack of contaminants. Tap water is also able to produce moderate growth with slower root development that may be caused by the higher TDS and dissolved minerals which could contribute to stunted growth compared to the lettuces that were placed in purified water. In contrast, lake water, with higher levels of organic contaminants showed limited growth and signs of mold by day 12. These findings imply that purified water is ideal for lettuce growth, meanwhile lake water displays issues that may derived from the runoff from nearby areas such as residential and commercial areas or environmental factors like humidity and changes in temperature that is beyond the researcher's control.

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