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*The Effect of N-P-K Ratio on the Growth Percentage of Anabaena*

The purpose of this research was to determine the effect of N-P-K ratio on growth percentage of blue-green algae *Anabaena*. The research also observed which N-P-K ratio yielded the lowest percentage growth of *Anabaena*. The hypothesis stated the fertilizer with higher K and low ratios of N and P will yield the least growth percentage of *Anabaena*.

The experiment involved adding ¼ teaspoon of 24-8-16, 20-20-20, and 18-18-21 ratio water-soluble fertilizers into each of the 3 containers containing 1 ml *Anabaena* algae. The dry residue of each container was measured twice in a 6-week growth period. The dry residue masses in both times were used to calculate the growth percentage of *Anabaena* algae.

The algae affected by 24-8-16 fertilizer had growth percentage of 5.16%, 20-20-20 ratio fertilizer yielded 4.02%, 18-18-21 ratio fertilizer yielded the lowest growth percentage of 2.68%. The result did not support the original hypothesis. Higher K with same ratios of N and P fertilizer (18-18-21) yielded the lowest growth percentage.

There was a significant decrease in growth percentage when the algae was affected by same Nitrogen and Phosphorous ratios and high Potassium nutrient. Further experimentation on how to stop algae before it turns into a Harmful Algal Bloom or knowing the time available to move species from a contaminated body of water, taking into caution the growth percentage each N-P-K ratio fertilizer yields, are suggested.