

# Effect of adding bio-fertilizer levels in the growth of three types of Aloe plant and its inhibitory effect of some pathogenic bacteria

By

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## Summary

The Experiment carried out during the growing season (2015–2016) in canopy canvas of the Faculty of agriculture, University of Basrah(Location of Karma Ali) and used four levels of Bio fertilizer.. Bio Health..(0,2,4,8) gm.ltr<sup>-1</sup> and three plantation varieties of Aloe gender ( *perry* , *ferox* , *vera* ). For the purpose of studying its impact on some green and chemical qualities of Aloe and inhibition activities For some types of bacteria pathogenic to human,we can summarizeas follow:

1–Given the Bio fertilizer type .. Bio Health.. and boost spirits in vegetative growth indicators (Plant height, number of leaves, paper width, length of paper, paper thickness, size and weight of each paper plant dry and mild vegetative total and total root) Increased concentrations of added fertilizer and higher moral level increase achieved with compost 8 gm/ltr<sup>-1</sup> standard of compared modulus.

2– Bio fertilizer treatment overtook incorporeity via Increase the chemical qualities of the Aloe plants leaf and of the percentage of each of the total chlorophyll(% 5.796) and total soluble carbohydrates (13.480%), protein (5.504%), total dissolved solids (5.034%) and gels

(5.034%). ), Dry matter (5.547%), vitamin C (63.00 mg / 100g) and phenols (3.509%) compared to treatment comparison .

3– Results show different compost among transactions in the greater concentration of nutrients (nitrogen, phosphorus, potassium) in the leaves of aloe plants and moral differences compared to treatment comparison And that the highest increase in nutrient concentration achieved with composting treatment 8 gm/ltr <sup>-1</sup> Bio health.

4– results showed different plant species of Aloe plants among moral gender in most thoughtful green qualities as the highest increase in the rate of Vera (plant height, length and width and thickness of the paper and volumetric of the paper and the paper space for each plant as well as mild and dry weight of root vegetative totals) while (perry) referred that's increasing the number of leaves per plant compared with type (ferox, vera).

5– The results showed an increase in the percentage of total dissolved carbohydrates (9.685%) and vitamin C 61.083 (mg), 100 gm <sup>-1</sup> for type A.vera while A.perry significantly exceeded the percentage of chlorophyll (4.850%), phenols (2.638%), (0.73%) and dry matter (8.048%) compared to A.ferox, A.vera. While not significantly different

from ferox in increasing percentage of nitrogen, phosphorus and protein, A.ferox was significantly higher in percentage Of total soluble solids and potassium compared to plant species A.vera, A.perry.

6- The chemical extract of aloe vertebrate was alkaline (40) mg. L1. Treatment with the level of samadi (8) gl. 1 – Bio Health was significant in giving the highest inhibitory diameter for the growth of human pathogenic bacteria under study Staphylococcus aureu, Escherichia coli and Pseudomonas aeruginosa. Whereas the single factors (plant extract concentration or samadi level) had no significant effect on increasing the diameter of inhibiting bacterial growth.