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Anatomical structure of *Antirrhinum majus* plant stem and leaf as affected by diatomite, putrescine and alpha- tocopherol treatments

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Abstract: Two pot experiments were conducted to study the effect of diatomite at the rate of 10, 20 and 30%, Putrescine at the rate of 100,200 and 300 ppm and alpha-tocopherol (Vitamine E) at the rate of400,800 and 1200 ppm on anatomical structure of stem and leaf of *Antirrhinum majus* L. plants. Data indicated that, all concentrations of diatomite, putrescine and alpha tocopherol increased stem anatomical structure expressed;stem diameter,phloem thickness,xylem thickness and pith thickness.The best results were found at the concentration of 30%diatomite,200ppm putrescine and 800 ppm alpha tocopherol. On the other hand the thickness of epidermis did not show any difference with the control,while all treatments decreased thicknessof cortex than control plants.All concentrations of diatomite,putrescine and alpha tocopherol increased leaf anatomical structure than control plant expressed; palisade thickness except 300 ppm putrescine, midrib thickness,spongy except 10 and20%diatomite,while the upper epidermis did not show any difference with control and the lower epidermis has similar structure with that shown in control and other concentrations.
Key words: *Antirrhinum majus* L.,diatomite, putrescine, alpha-tocopherol, anatomical structure.

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