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Effect of some fertilization treatments on vegetative growth of Moringa grown in saline habitat

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Abstract : *Moringa oleifera* considered as one of the most nutritious plants in the world, which have multipurpose uses, nutritional and medicinal values, that is why it is called a miracle tree. Two field experiments were conducted in the Model Farm of National Research centre, El Tour, South Sinai under drip irrigation system to evaluate the effect of organic and biofertilizer on growth and some physiochemical parameter of Moringa plants under saline habitat conditions. The experiment was laid out in completely randomized block.Results showed that plant height, number of branches per plant , number of leaves per plant , leaf area (cm^2) , stem diameter (cm) dry weight of leaves(g), dry weight of stem(g) and dry weight of root(g) were significantly affected with the application of inorganic, organic and biofertilizer individually or in combination. The results revealed that T_{11} (50% Min. fert. + 2.5kgChicken man. + Cerialene) exhibited significant increases in most of the growth parameters compared to other treatments. It is clear that inoculation with Cerialene improves all the tolerance feature of Moringa plants and increase plant adaptation to saline habitat. The highest content of soluble carbohydrates, proline (ug/g fresh wt.) and sodium content (mg/g dry wt.) were recorded in $T_{2,}$ meanwhile T_{11}produced the highest chlorophyll a+b (mg/g fresh wt.), crude protein and potassium content(mg/g dry wt.) as well as K/Na ratio. The micronutrients behaviors followed the same trends of growth criteria, where T11, T10 and T9 produced the highest contents of Zn, Mn, Fe and B in the leaves of *Moringa oleifera* descendingally.
Key words: Moringa- organic - biofertilizer - saline habitat.

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