Biotechnological Studies On The Impact Of Algae On The Plant Nigella Sativa

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ABSTRACT

This study was conducted on the *Nigella sativa* plant in the permanent land for two winter successive seasons 2017/2018 and 2018/2019 in the sandy land under the drip irrigation system in the research farm of Ali Mubarak farm - Horticultural Research Institute - Agricultural Research Center, the field experiment was arranged in split plot design with three replicates where algae types (laurenciamicrocladia, Janiarubens and Ulva lactuca, Scenedesmus obliqus, Ankistrodesmusfalacatus, and Chlorella vulgaris) were allocated in the main plots and five fertilization were randomly distributed in the sub-plots.

-:The study aims to

1) Study the effect of algae on the *Nigella Sativa* plant in vegetative and seed yield measurements (plant length - number of branches - number of flowers - growth strength - fresh weight - dry weight - weight of 1000 seeds).

2) Study the effect of algae on plant chemical properties.

3) Study the impact of algae and fertilizer levels on oil yield and quality .

The results revealed that the study, we recommend cultivating the *Nigella Sativa* plant using marine and indigo algae with less mineral fertilization for its superiority in measurements of vegetative and fruitful growth for all the aforementioned reasons .We also recommend the use of algae to increase the components of the seed content of micro and macro elements .

Key words: *Nigella Sativa*, marine algae, fresh algae,algae, seaweed.