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Flavonoids, essential oiland its constituents of *Anethum graveolens* L. herb affected by nitrogen and bio-fertilizers

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This study was to investigate the response of *Anethum graveolens* L. plants to the nitrogen fertilizer (0, 20, 40, 60 and 80 kg N/fed.) with or without bio-fertilizers (at 2 kg/fed.) on the flavonoids content and essential oil as well as its chemical constituents during the vegetative stage (90 days after sowing). The recorded results showed that in the two seasons, treatment of 60 kgN/fed with or without bio-fertilizers gave the best values of volatile oil percentage and oil yield in the herb. Also the most effective fertilization treatment on flavonoids content was 40 or 60 Kg N/fed with bio-fertilizers. In the essential oil constituents of Dill herb, all treatments showed α -phellandrene (42.44 to 66.39%) as the major compound followed by p-cymene(11.97 to 18.39%) and limonene(1.42 to 14.25%) then β -phellandrene (7.67 to 11.18%).

Biography

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