Abstract:

To study the effects of nitroxin bio fertilizer and foliar application of humic acid on sweet basil (Ocimum basilicum) quantitative traits and essential oil present, an experiment was conducted farm of Bastak city farm located in Hormozgan province in 2014 as factorial in a randomized complete block design with three replications. Nitroxin bio-fertilizer treatments include: Control (no fertilizer), 0/5, 1 and 1/5 liters per hectare and 3 levels of humic acid: control, 3 and 6 liters per hectare, respectively. Based on the results, humic acid foliar application had a significant effect on the number of branches, leaf number, aerial parts height, aerial dry fresh weight and, root dry weight, chlorophyll b, weight and oil percentage. The impact of nitroxin biofertilizer treatments also was significant on studied traits. Study of Treatments interaction also indicated that it will be obtained the maximum fresh weight, shoot dry weight and the weight and the percentage of essential oils by combined half a liter per hectare nitroxin + three liters per hectare humic acid. The results indicated that humic acid and nitroxin can increase yield and quality of basil in terms of edible and medicinal. As well as maintaining and improving the quality of basil and its active constituents, can be achieved the functional equivalent of basil with conventional systems.

Key words: Carotenoid, Chlorophyll, Essential oil, Root dry weight



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