

Abstract:

Since the global approach is towards using herbal medicines and avoids chemical medicines, more attention to medicinal plants is necessitated. Perhaps the first step in the further development of these plants is optimal conditions for growth and how grows them. Rosemary is one of the valuable medicinal plants. In order to investigate effects of planting bed and different concentrations of indole -3- butyric acid (IBA) on rooting of rosemary cuttings, an experiment was conducted as factorial based on randomized complete block design with three replications at ornamental greenhouse, Research Center of Agriculture, University of Zabol, during 2014. The planting bed treatments were included three planting bed as follows; farm soil, sandy soil and mixture of farm soil and sandy soil (in half), and indole -3- butyric acid were included four concentrations as follows; without using IBA (control), 2, 4 and 6 mg/l. In this experiment, some traits including number of root, length of root, fresh weight of root and leaf, leaf area, root area, dry weight of root and leaf was evaluated in three sampling. The results showed that the highest number of root, length of root, fresh weight of root and leaf, leaf area, dry weight of root and leaf in three sampling was obtained from sandy planting bed and the lowest of them was obtained from farm soil planting bed. Among the studied traits, number of root only showed positive reaction to using hormone. So that with increasing in IBA concentration, the number of root increased in linear manner (the highest and lowest number of root was belonged to 6 mg/l and without using IBA, respectively). In general, the results of this experiment showed that the highest rooting of rosemary cuttings is obtained from sandy planting bed and using 6 mg/l IBA. The results of correlation among studied also showed that with increasing in number of cutting roots due to proper planting bed and proper application

of IBA, will caused to increasing in root weight and follow that leaf area and weight. According to the results of this experiment, it seems that increasing in rooting of rosemary cuttings under optimal growth conditions can help to further development of this important medicinal plant.

Keywords: Herbal Medicine, Drugs, Rosemary, Hormone auxin



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**Effects of planting bed and different
concentrations of indole -3- butyric acid
(IBA) on rooting of rosemary
(*Rosmarinus officinalis*) cuttings**

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