Abstract

Consumption management of many kinds of chemical and organic fertilizers are of importance for the sake of environmental effects and quantity revenue of dray plants, particularly in Iran arid and semi arid lands. In order to evaluate effects of drought stress and organic and chemical fertilizers on bishops weed plant dray *(Carum copticum),* an experiment was run as split plot in a randomized complete block design with three replications done at Research center in Zabol University locating at new pardis of this university. In this experiment considering three level of drought stress included irrigation with 50,70, 90 percent of field capacity as main plots. Six level of fertilizer included non fertilizer consumption (control), live stock fertilizer compost, NPK, 50% live stock fertilizer + 50% NPK, 50% compost + 50% NPK, as subplots. traits for this purpose, included quality traits (plant height, number of umbrella, thousand seed weight, plant seed weight, air organ weight, total yield) essence quality traits (essence percent, essence yield). The results showed that drought stress decreased quality and quantity yield of bishops weed plant dray in this experiment. So that, increasing drought stress on quality and quantity traits of bishops weed has reductive effects. So that with increasing drought stress reduced quality and quantity traits. Consumption effects of different fertilizers were so that live stock fertilizer has the most effect on the plant seed weight and the most of it has been it 50 percent of field capacity and 50% live stock fertilizer + 50% NPK has effective importance on the thousand seed weight. By increasing stress level, its effective was more than the others. NPK fertilizer has the most effects on plant height and 50% live stock fertilizer + 50% NPK had the most effects on number of umbrella and plant seed weight. In both cases, 50percent of field capacity was. 50% Compost fertilizer + 50% NPK had the most effects on essence percent and essence yield on 50percent of field capacity but, the most effect of essence was in relation with live stock fertilizer treatment in 70percent of field capacity has eared. Interactions drought stress and fertilizer consumption showed that during experiment, live stock fertilizer and compost causes adjustment of stress negative effects, particularly in severe drought stress causing recovery quality and quality yield of bishops weeds so considering all sides and views can use consumption of compost and live stock fertilizers as a blend with chemical fertilizer in order to develop bishops weed planting in sistan area, particularly advices, soft stress conditions, waiting for maximum yield.

Key words: Bishops weed *(Carum capticum),* drought stress, quality and quantity traits, fertilizer.

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Thesis Submitted in Partial Fulfillment of the Requirement for the degree of Master of Science (M. Sc) in Agroecology

Title

Effect of drought stress and organic and inorganic fertilizers on quantity and quality characteristics of Ammi (*Carum copticum*)

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May 2012