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BOOK OF ABSTRACTS

LIVRE DES RÉSUMÉS

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STUDY THE AERIAL PARTS PRODUCTION OF DWARF CHICORY (*Cichorium pumilum* Jacq.) UNDER DIFFERENT SOWING DATES AND PLANT DENSITY

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Introduction:

Dwarf chicory (*Cichorium pumilum* Jacq.) is one of the annual species from chicory genus grows in Western and Southern parts of Iran [1]. To date no study on this species has been carried out under the field conditions.

Material and methods:

In order to determine the suitable planting date of dwarf chicory, an experiment was conducted in a split plot layout based on randomized complete block design with three replications at Research Station, Faculty of Agriculture, Ferdowsi University of Mashhad, Iran, in 2007-2008 years. The experimental treatments were all combination of three planting dates (Apr. 23., Sep. 11 and Nov. 1) and three plant densities (10, 20 and 40 plants.m⁻²). Sampling was performed every 2 weeks for 4 times since stem elongation. Leaf area index (LAI), leaf dry weight, stem dry weight, and inflorescence dry weight were measured for each sample.

Results and discussion:

The effect of planting date on leaf, stem and inflorescence dry weights was found significant. The highest leaf dry weight was obtained from the first sampling of Sep. 11 planting date. This planting date was better for dwarf chicory plant establishment. The main effect of plant density on LAI and leaf dry weight was significant for the first sampling stage. The highest LAI was related to 40 plant.m⁻² density, but the highest leaf dry weight was obtained from 10 plant.m⁻² density. Planting date and density interaction was significant for the stem dry weight at the second sampling. Mean comparison showed that Nov. 1 planting date with 10 plant.m⁻² density treatment had the least stem dry weight than other treatments. Study of plant growth and developmental stages led to determine the 4 main growth stages, in which, the vegetative growth was the longest phase. Also, dwarf chicory needs about 3000 GDD to complete its life cycle. It seems that the suitable planting date for dwarf chicory is Sep. 11 with 20 plants.m⁻² as a winter annual plant in climate of Mashhad, Iran [2].

Key words: GDD, LAI, leaf dry weight, stem dry weight

References:

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