

عنوان مقاله:

Study of Reducing Water Consumption with Irrigation Method in Different Common Bean (*Phaseolus vulgaris* L.)
Cultivars at Shahrekord Region

محل انتشار:

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تعداد صفحات اصل مقاله: 1

نویسندگان:

Foroud Salehi - *Crop and Horticultural Sciences Research Department, Chaharmahal and Bakhtiari Agricultural and Natural Resources Research and Education Center, AREEO, Shahrekord, Iran*

ALI SOLEYMANI - *Professor, Plant Improvement and Seed Production Research Center, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran*

MAJID SHAMS - *Assistant Professor, Department of Agronomy and Plant Breeding, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran*

خلاصه مقاله:

Study of Reducing Water Consumption with Irrigation Method in Different Common Bean (*Phaseolus vulgaris* L.) Cultivars at Shahrekord Region Foroud Salehi^۱ and Bijan Haghighati-Boroujeni^۲ ۱- Crop and Horticultural Sciences Research Department, Chaharmahal and Bakhtiari Agricultural and Natural Resources Research and Education Center, AREEO, Shahrekord, Iran. ۲- Soil and Water Sciences Research Department, Chaharmahal and Bakhtiari Agricultural and Natural Resources Research and Education Center, AREEO, Shahrekord, Iran. *Corresponding author E-mail: foroud_salehi@yahoo.com Received: ۱۰ March ۲۰۱۹ Accepted: ۲۰ June ۲۰۱۹

Abstract Common bean is a product cultivated in Chaharmahal and Bakhtiari province with high water consumption and in recent years, due to water scarcity, its cultivation has declined sharply. In this experiment, different methods of reducing water use with changing in irrigation method in bean cultivars was investigated. Factorial experiment was conducted in a randomized complete block design with three replications ۲۰۱۶ and ۲۰۱۷ at Chahartakhte Research Station in Shahrekord region. The first factor was cultivar in three levels (Koosha chitti bean, Yaghut red bean and Dorsa white bean), and the second factor was the irrigation method in three levels (strip-drip irrigation, furrow irrigation, and conventional (flood) irrigation (strip surface irrigation)). Combined analysis results showed that plant height, grain yield, yield components, and water productivity were affected by bean cultivars and irrigation methods. The highest grain yield was obtained from Yaghut red bean cultivar, which had a significant difference with Koosha chitti bean cultivar. The highest water productivity was obtained from Yaghut red bean cultivar, which had a significant difference with other common bean cultivars. The highest water productivity was obtained from strip surface irrigation, which did not have a significant difference with strip drip irrigation, while water use in strip drip irrigation was far less than strip surface irrigation. Therefore, it is possible to use drip irrigation with less water consumption. Keywords: Common bean, Yield, Reduce irrigation, Water productivity

کلمات کلیدی:

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