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**BOOK OF  
ABSTRACTS**

*XIII International Scientific Agriculture Symposium  
"AGROSYM 2022"  
October 6-9, 2022*



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## EFFECTS OF DROUGHT STRESS ON PURSLANE (*PORTULACA OLERACEA*)

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### Abstract

Purslane (*Portulaca oleracea* L.) is a herbaceous fleshy plant, which is relatively more drought tolerant than other species. Drought is one of the most important environmental stresses that influence the metabolism and growth of plants. The objective of this study was to determine the influence of drought stress on the chemical composition, yield and some quality parameters of purslane (*Portulaca oleracea*). The experiment was conducted in an unheated and 110 m<sup>2</sup> plastic polyethylene (PE) covered greenhouse of the Ege University- Bayındır Vocational Training School (38 ° 12 '09.9 " N, 27 ° 40' 20.8 " E) in Türkiye during the summer of 2021. The results showed that purslane yield was affected by the treatments, the highest (888 g pot<sup>-1</sup>) being in the Control (I<sub>1</sub>). Findings also indicated that the yield obtained from I<sub>0.8</sub> irrigation dose was high and statistically in the same group with the Control. However, under water stress conditions (I<sub>0.6</sub> and I<sub>0.4</sub>), the yield decreased drastically as 607 and 537g pot<sup>-1</sup> respectively. The drought conditions/treatments in this respect had significant effects on yield, plant height, total plant number, thin stem plant number, and thick stem plant number. Chemical analysis (dry matter basis) of leaves showed insignificant differences among the different drought treatments for all the characteristics measured. Only leaf and stem K contents decreased as the water stress increased.

**Key words:** *Drought, purslane, yield, stress, plant nutrition.*