## PHYSIOLOGICAL PARTICULARITIES OF PORTULACA OLERACEA L. PLANTS

**ARIAL 14, BOLD, CAPITALS, CENTERED** 

Author(s)First name FAMILY NAME<sup>1</sup>, First nameFAMILY NAME<sup>2</sup> ARIAL 12, Bold, Align Text Right

Institutions (1)University of Craiova, 19 Libertății street, Craiova, Romania ARIAL 1, Italic,
Align Text Right

author email: author\_email@gmail.com Arial 11 Align Text Right

**Corresponding author email:** Arial, 11 point font, bold, small letters, alignment centered.

## Abstract Arial 11, Bold, alignment left

Portulaca oleracea L., considered by many a weed, is in fact a plant with multiple food and medicinal values, and with a specific adaptation to stress conditions.

Grown in water supply option conditions, the plant has a C4 type metabolism, but in drought conditions, it uses the way of closing the stomata during the day, achieving a CAM type metabolism. The high values of the stomatal conductance recorded in the dark and the high contentof malic acid in the leaves especially in the morning, indicate this adaptation. Plants exposed to water stress also showed higher values of suction force and higher percentages of bound water. Arial 11, Italic, justified, no indentation, minimum 100 and maximum 250 words

Key words: purslane, photosinthesis, transpiration, stomatal conductance -Arial 10, Italic, no indentation, maximum 5 words

## **INTRODUCTION** ARIAL 12 Bold, alignment left, at one space row down from the text.

Common purslane, Portulaca oleracea, is a highly variable, weedy plant in the (Portulacaceae) family with а wide distribution. Although it is likely native to North Africa, the Middle East, and the Indian subcontinent, it had reached North America by pre-Columbian times and was in Europe by the late 16 th century. It is now naturalized in most parts of the world, both tropical and temperate - equally at home in flower beds, cultivated fields, and roadsides or other disturbed or waste places. It has been grown for more than 4,000 years as a food and medicinal plant and is still cultivated in many places today. It is considered quite nutritious because it is unusually high in omega-3 fatty acids (found mostly in fish and flax seeds) and contains significant amounts of vitamins A C, calcium. and as well iron. and potassium and magnesium

indentation left margin)	`		Ŭ		
		 		•••••	
		 		•••••	
	• • • • • • • • • • • • • • • • • • • •	 •	• • • • • • • • • • • • • • • • • • • •	•••••	

antioxidants. ARIAL 12, Justify,

no

MATERIALS AND METHODS ARIAL 12		
Bold, alignment left, at one space row		
down from the text.		
The experiments carried out between June		
and September 2021 aimed at knowing the		
physiological particularities of the		
Portulaca oleracea plants		
7 Ortaliada Oloradda plante		
		•
ADIAL 42		•
ARIAL 12,		•
Justify, no indentation (the row starts right		•
from the left margin)		• •
		• •
RESULTS AND DISCUSSIONS ARIAL12		
Bold, alignment left, at one space row		• •
down from the text.		
The total water content of leaves		
The total water content of the leaves		
showed insignificant variations in the plants		
grown on irrigated land. On dry soil, the	24	
percentage of total water was 83% in June,	84	
but reached 79% in August (fig. 1) ARIAL	82	
12, Justify, no indentation (the row starts	80 ■ dry soil	
right from the left margin)	watering soil	
	78	
	76	
	June July August	
	Figure 1.	_
	<del></del>	
	Table 1. Evolution of plantsARIAL 10, alignmer	ıt
	centered and 6 pt spacing paragraph after	
	Specification   2017/ 2018   2019   2020   2021   2021	
	smaller (%)	
	Plants first 7,554 6,830 4,654 3,050 2,890 29.50	
	location: 1,667 1,668 2,	-
	second 1,200 2,781 1,878 1,895 1,456 49.00	
	location:	
		•
		-

.....

Table 3. Portulaca oleracea......ARIAL 10, alignment centered

	Control		
Plant 1	0.2	12.6	13.2
Plant 2	0.5	1	01.5
Plant 3	0.7	0.6	0.7
Plant 4	0.9	6.4	8.2
Plant 5	0.8	0.5	0.7
Plant 6	0.9	0.3	0.6

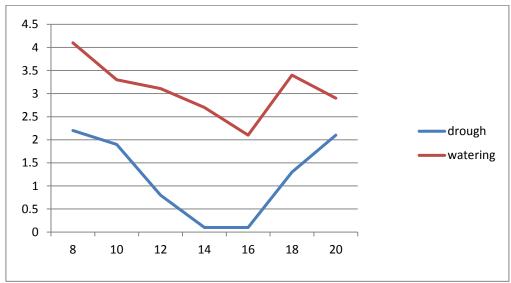


Figure 2. The diurnal variation of leaves transpiration (mmol / m <sup>2</sup> / s) ARIAL 10, alignment centered and 6 pt spacing paragraph before



Figure 3. Portulaca oleracea

•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	٠	•	•	•	٠	•	•	•	•	 •	•	•	•	•	•	 	•	•	•	•	•	•	•	-	•	• •	•	•	• •	۰
				-			-	-	-							-	-				-			-	-		-		-		 						 							-		-		-			
				-			-	-	-							-					-			-	-		-		-		 				-		 							-		-		-			
																													-		 						 									-					
																													-		 						 									-					

•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
-																																																				
-																																																				
-																																																				
-																																																				
-																																																				
-	 •								-				-	-		•		-					-																				-		-	-		-			-	

## **CONCLUSIONS ARIAL 12** alignment left, at one space row down from the text.

Portulaca oleracea L. is a species adapted to drought conditions.

The high percentage of total water in the leaves gives that juiciness of the leaves, characteristic of plants with adaptation to drought.

Bound water in higher quantities also indicates an increased resistance capacityARIAL 12, no indentation (the row starts right from the left margin), alignment justified.  ACKNOWLEDGEMENTS ARIAL 12	ARIAL 12, no indentation (the row starts
alignment left, at one space row down from the text.	right from the left margin), alignment justified.
This research work was carried out with the support of Ministry of Agriculture and Rural Development, financed from Project PN II Partnership No	REFERENCES ARIAL 12 alignment left, at one space row down from the text.  Boldor, O., Raianu O., Trifu M. (1983). Fiziologia plantelor, Lucrari practice. Bucharest, RO: Ed. Did. și Ped. Publishing House.  El-Keblawy, A., Al-Ansari, F. (2000). Effects of site of origin, time of seed maturation, and seed age on germination behavior of Portulacaoleracea from the Old and New Worlds. Canadian Journal of Botany, 78(3),279-287,https://www.cabi.org/isc/ Garti, N., Slavin, Y., Aserin, A., (1999). Surface and emulsification properties of a new gum extracted from Portulaca oleracea L. Food Hydrocolloids, 13(2),145-155. Grieve, C.M., Suarez, D.L., (1997). Purslane (Portulaca oleracea L.): a halophytic crop for drainage water reuse systems. Planta and Soil, 192(2), 277-283.  ARIAL 12, indentation hanging 0.5 cm, alignment justified. The references must be writtenin alphabetical order by authors' names, inAPA style (https://courses.lumenlearning.com/boundless-writing/chapter/apa-citations-and-
	references/).

The references must be written in alphabetical order by authors' names in APA style (https://courses.lumenlearning.com/boundless-writing/chapter/apa-citations-and-references or use the Google Scholar at https://scholar.google.com to generate APA citation style for a specific article).