**PHYSIOLOGICAL PARTICULARITIES OF**

***PORTULACA OLERACEA* L. PLANTS**

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

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**AbstractArial 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 a 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 and C, as well as calcium, iron, magnesium and potassium and antioxidants. ARIAL 12, Justify, no indentation (the row starts right from the left margin)

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**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…………………...

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**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 percentage of total water was 83% in June, but reached 79% in August (fig. 1) ARIAL 12, Justify, no indentation (the row starts right from the left margin)

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Figure 1.

Table 1. Evolution of plants…..TNR 10,alignment centered and 6 pt spacing paragraph after

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SpecificationTNR 10 or smaller | 2017 | 2018 | 2019 | 2020 | 2021 | 2017/2021(%) |
| Plants first location: | 7,554 | 6,830 | 4,654 | 3,050 | 2,890 | 29.50 |
| Plants second location: | 1,200 | 2,781 | 1,878 | 1,895 | 1,456 | 49.00 |

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

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| --- | --- | --- | --- |
|  | 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 2 / s)

ARIAL, alignment centered and 6 pt spacing paragraph before

Figure 3. *Portulaca oleracea*

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**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 capacity.……………………ARIAL 12, no indentation (the row starts right from the left margin), alignment justified.

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

This research work was carried out with the support of Ministry of Agriculture and Rural Development, financed from Project PN II Partnership No………………………..

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

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