

### Summer Field School [Online] on MOUNTAIN ECOSYSTEMS AND RESOURCE MANAGEMENT Ivano-Frankivsk Region, Ukraine :: 19-28 September, 2021

### DELEGATE PARTICIPANT'S PROFILE

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Review or Field Work)

#### Dr. Ivona David

Lecturer

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Highest Education	Ph.D (Agronomy)
Personal Statement	A short introduction of myself as the delegate participant for the forthcoming Summer School on 'Mountain Ecosystems and Resource Management'.
	I have a Ph.D. in Agronomy and I am lecturer at the Department of Environmental Engineering from Valahia University of Targoviste, Romania. I attended the courses of Faculty of Environmental Engineering and Biotechnology, and I specialized in agro-montanology (between the years 1996 and 2001).
	I obtained a bachelor's degree – Engineer graduated in agricultural profile, specialization - Agromontanology.  I obtained the title of doctor (Ph.D.) in 2009 in agricultural sciences (agronomy) from University of Agricultural Sciences and Veterinary Medicine Bucharest, Faculty of Agriculture. Academic interests include agronomy, protection of the environment and sustainable development of areas.  I have over 40 academic published works, including books and papers.
Paper/Presentation Title	Analysis of physiological and biochemical parameters in the
(Unpublished Research or	Raphanus sativus species obtained in different cultivation systems



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Keywords	Raphanus; Physiological parameters; Biochemical parameters; Cultivation; System; Analysis
Abstract (100-300 words)	This paper presents the results obtained from the analysis of physiological and biochemical parameters in the species <i>Raphanus sativus</i> variety Rond Ecarlate which was grown in three different systems (in the field, in the solarium and in the climate chamber). Several parameters necessary for the evaluation of biomass (the biometric determinations), physiological processes and nutritional values were determined.
	Regarding the biometric parameters, it was noticed that in the field cultivation the plants formed several 12-13 leaves, in the solarium an average number of 9 leaves, and in the climatic chamber the analyzed plants formed a number of 7 leaves, on average. The total biomass of the plant recorded the following average values: in the field 68.3 grams, in the solarium 92.3 grams and in the climate chamber 32.9 grams. Regarding the circumference of the tuberous hypocotyl axis, the values are higher in plants grown in solarium (17 cm), the smallest dimensions being recorded in plants grown in the climatic chamber (7.7 cm).
	The highest average pulp firmness value was observed in plants grown in the solarium, namely 0.27 kg force and the lowest value were seen in plants grown in the climatic chamber (0.14 kg force). Regarding the amount of water lost through perspiration by the leaves of radish plants, the highest average values were recorded at plants grown in the solarium, and the lowest at plants grown in the climatic chamber.
	The average soluble dry matter content was high (over 4%) in plants grown in the climate chamber compared to other harvesting systems. The analysis of the average carbohydrates content shows that the total soluble carbohydrates were present only in the hypocotyl axis and glucose was found both in the hypocotyl axis of the studied plants and in the



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	leaves. Vitamin C was present in variable amounts, both in the hypocotyl axis and in the leaves. The average amino acid content (expressed in amino nitrogen) was between 0.003 and 0.006%. The anthocyanins presented the highest values in field-grown plants, respectively 54.5 mg, and catalase activity was present both in the hypocotyl axis and in the leaves and roots.
More Information (weblinks)	