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IN MEMORIAM OF ONA RUPAINIENĖ (1933–2016)

Ona Rupainienė prominent Lithuanian plant physiologist passed away on 2nd of May 2016. For a long time being researcher at the Laboratory of Plant Physiology of Institute of Botany together with laboratory co-workers she researched plant reaction to gravity and participated in space research programs, performing investigations of plant growth and development in microgravity conditions.

Ona Rupainienė (Dikšaitytė) was born on 13 April 1933 in Jurbarkas District, Varnaičių village. Youthful she spent in Siberia Krasnoyarsk region, where was exiled with family. There she graduated secondary school of Nazarov. In the end of the forties she returned to Lithuania and in 1961 graduated Department of Nature and Geography of Vilnius State Pedagogical Institute acquiring profession of teacher of natural sciences and geography. In 1959–1962 she worked as laboratory assistant in Vilnius State Pedagogical Institute. In 1962 she began her career in Laboratory of Plant Physiology of Institute of Botany of Lithuanian Academy of Sciences. Since 1961 till the end of the 20th century Laboratory of Plant Physiology was guided by one of the most prominent plant physiologists Alfonsas Merkys. In early years Ona Rupainienė worked as laboratory assistant, junior researcher and later senior researcher. Altogether she had worked in the Laboratory for 38 years and retired in 2000.

In the time when Ona Rupainienė began her scientific career young scientist Alfonsas Merkys developed new research field in Laboratory of Plant Physiology. Laboratory co-workers investigated plant reaction to gravity. It is well known that plant hormone auxin action during gravitropic reaction is essential. Ona Rupainienė was offered to investigate changes of respiration during plant reaction to gravity and how these changes are related with the lateral distribution of plant hormone auxin along the gravitropic irritated axial plant organ. She obtained results that gravitropically irritated plant axial organ undergoes some physiological processes of polarization. That the lower side of axial organ increases not only the amount of free auxin, but combined with protein as well. In 1971 on the basis of these results she defended thesis „The nature of changes of plant respiration process and its relationship with auxins distribution during the gravitropic reaction“ for the degree of Candidate of Science. In 1993 after nostrification she was conferred a degree of Doctor of biomedical sciences.

Since 1971 Alfonsas Merkys and his co-workers started to participate in Space research programs. Ona Rupainienė was offered to investigate plant growth and development under micragravitational conditions. She participated in experiments for growing plants in space shuttles and space stations investigating interaction of growth determining systems with gravity, growth, development, anatomy and morphological structure of different plants under spaceflight conditions, the state of gravity sensors and peculiarities of plant growth during different g-loads. She was one of the first plant physiologist's skilled in

electron microscopy technique. On these themes she announced over 70 publications.

Ona Rupainienė was an active member of the Society of Lithuanian Plant Physiologists. She was especially familiar with Lithuanian language and particularly interested in Lithuanian terms of plant biology. For many years she had been collected English-Lithuanian terms of biology. In 1998 she published „Short dictionary of English-Lithuanian and Lithuanian-English plant biology terms".

Onutė, as we called her kindly, was a person working on the culture and independence of her country. Since early years of her studies she was a participant of Ensemble of Lithuanian song and dances. In February 1979, some of the folklore lovers organized a new folklore Group of Lithuanian Academy of Sciences, Onutė was among them, and later in 1987 she became a member of folk group „ŪLA" and took part in the movement of the folklore ensembles from the very outset. She was participant at numerous festivals in Lithuania and abroad, including the Latvia, France, Norway, Germany, Austria, Italy, Spain, and Poland. Together with her husband Algis Rupainis she was socially active person in Lithuanian independence movement.

Ona Rupainienė was kind and generous person always ready to help, explain and advise.

May her soul rest in peace!

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