



**POLSKA AKADEMIA NAUK
OGRÓD BOTANICZNY
- CENTRUM ZACHOWANIA RÓŻNORODNOŚCI BIOLOGICZNEJ
W POWSINIE**

Program i streszczenia

**I SYMPOZJUM RÓŻANE
14-16 CZERWCA 2019**

14 CZERWCA

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Róże w produkcji i zastosowaniu
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Warszawa 2019

Rosalia
2019



EVALUATION OF THE UTILITY VALUE AND HEALTH PROMOTING COMPOUNDS IN ROSEHIPS OF SELECTED ROSE GENOTYPES (*ROSA* SPP.)

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Morphological characteristics and chemical composition of rosehips from 9 *Rosa* genotypes were evaluated during 2016-2018 (*Rosa canina*, *R. canina* 'Plovdiv 1', *R. canina* 'Plovdiv 2', *R. canina* 'Schmid's Ideal', *R. 'Vevecina 115'*, *R. villosa* 'Karpattia', *R. 'Konstancin'*, *R. rubiginosa* and *R. rugosa*). Rosehips of *R. canina* 'Plovdiv 1' showed a 3-fold increase in total acidity (4.9%) compared to rosehips of *R. rugosa*, which were characterized by the lowest acidity (1.6%). Rosehips of *R. canina* 'Plovdiv 2' and 'Plovdiv 1' contained the highest concentration of citric acid (2.6 and 2.4 respectively) which was almost 5 times more higher than rosehips of *R. 'Vevecina'* (0.5%) and *R. 'Konstancin'* (0.6%). Large variation was observed among the analyzed bioactive compounds exhibiting pro-health properties: L-ascorbic acid (299-2933 mg/100g), total polyphenols (1081-2394 mg/100g), including flavonoids (312-1125 mg/100g). The highest concentration of L-ascorbic acid was found in rosehips of *R. 'Vevecina 115'* (2933 mg/100g) and *R. 'Konstancin'* (2150 mg/100g). This level of L-ascorbic acid is very high. A 3-4 g portion of rosehips cover 100% of the recommended daily recommended value demand for this nutrient. The highest amount of polyphenols, including flavonoids, was found in rosehips of *R. canina* (2388 and 998 mg/100g respectively), *R. canina* 'Plovdiv 1' (2384 and 1087 mg/l), 'Plovdiv 2' (2340 and 1101 mg/100g) and *R. rubiginosa* (2109 and 1125 mg/100g).