

**ANTIOXIDANT ACTIVITY OF FRUIT AND LEAVES
OF DATE PLUM (*DIOSPYROS LOTUS* L.)**

O. Grygorieva^{1*}, J. Brindza², S. Klymenko¹, N. Nikolaieva³

¹⁾ M. M. Gryshko National Botanical Garden, National Academy of
Sciences of Ukraine, Kyiv, Ukraine

²⁾ Slovak University of Agriculture, Nitra, Slovak Republic

³⁾ National aviation university,
Institute of Ecological Safety, Kyiv, Ukraine

The aim of this work was to evaluate the total antioxidant activity of fruits and leaves of *Diospyros lotus* L., which is a valuable source of biologically active substances. The objects of investigation were the fruits of 11 genotypes, which grown in the arboretum Mlynyany (Slovakia). Has been studied the seasonal dynamic of the accumulation of antioxidants in the leaves of pistillate and staminal specimens. The total antioxidant activity of aqueous and methanol extracts of the samples were determined by DPPH method. In the investigation of fruit found that antioxidant potential was higher in the methanolic extract in the range from 60.22% to 93.53% in aqueous extracts – from 39.45% to 65.51%. Conducted researches of leaves *Diospyros lotus* revealed that antioxidant potential of higher in methanolic extracts. During the growing season content of antioxidants in the leaves is increased mostly by the end of the season. Thus, used the indicators of total antioxidant activity allows screening to select the most valuable samples for use in scientific and practical developments in the field of plant breeding, food and pharmaceutical industries. An elevated level of antioxidant substances in the fruits determines their biological value and high consumer properties.

Keywords: *Diospyros lotus* L., antioxidant activity, fruits, leaves

* Corresponding author: ogrygorieva@mail.ru