

**INFLUENCE OF ACTIVATED WATER ON THE PHYSICAL
CHARACTERISTICS AND ANTIOXIDANT ACTIVITY OF
EXTRACTS FROM FRUITS OF AMERICAN POKEWEED
(*PHYTOLACCA AMERICANA* L)**

J.Brindza^{1*}, M. Kurik², F. Pancurák³

¹⁾ Institute of Biodiversity Conservation and Biosafety, Faculty of
Agrobiology and Food resources, Slovak University of Agriculture, Nitra,
Slovak Republic

²⁾ Human Ecology Institute, Kyiv, Ukraine

³⁾ MERCI_M, s.r.o, Prešov, Slovak republic

The aim of this work was to determine changes in the physical parameters (pH, temperature, conductivity, TDS) and antioxidant activity of extracts from fruits and of peduncles in activated and non-activated distilled water in the laboratory conditions. Investigations were carried out on the fresh fruit and peduncles of *Phytolacca americana* L. to 100 mL of utensils we laid separately 5 g of whole fruit (option 2), crushed fruit (option 3) and the peduncle (option 4). Fruits and peduncles were filled with distilled water without activation (option 1 - control), while the second group was flooded with activated water. The distilled water was activated several times (A1 to A10) using the Kalyxx device. The extraction lasted 5 days. Every day has been measured the pH, °C, conductivity and TDS at 8 a.m. and 2 p.m. Antioxidant activity was determined by the DPPH method in aqueous and/or Methanol extracts. Between the variants has been identified significant differences. In aqueous extracts antioxidant activity achieved 18.31% (peduncle) and 37.49% (crushed fruit), in methanol extract antioxidant activities showed 74.38% (peduncle) and/or 88.81% (crushed fruit). Significant differences were identified among the options in the amount of water activation. The results confirmed the effect of water on the activation extract of fresh fruit, crushed fruits and of peduncles in both, the physical characteristics and antioxidant activity. The colorant from the fruit can also be used in the food industry.

Keywords: Activated water, antioxidant activity, *Phytolacca americana* L.

* Corresponding author: jan.brindza@uniag.sk