

TRANSFORMACIJSKI POTENCIJAL OTPADNE BIOMASE LUKA

Mirna Brekalo*, Marija Stjepanović, Ivica Strelec, Sandra Budžaki

*Sveučilište Josipa Jurja Strossmayera u Osijeku, Prehrambeno-tehnološki fakultet
Osijek, Franje Kuhača 18, 31000 Osijek, Hrvatska*

**mbrekalo@ptfos.hr*

usmeno priopćenje

Luk je jedna od često korištenih namirnica, čija otpadna biomasa nakon proizvodnje i industrijske prerade završava na otpadu, što predstavlja značajno ekološko i ekonomsko opterećenje kako za industriju tako i po okoliš. Sukladno tome, inovativne tehnike obrade i iscrpljivanja otpadne biomase luka dobivaju sve više na važnosti. Otpadna biomasa luka se ističe kao visokovrijedna sirovina za daljnje iskorištenje zbog osebujnog kemijskog sastava koji uključuje visok udio prehrambenih vlakana, minerala, antioksidanasa, organo-sumpornih spojeva i dominantnog flavonola kvercetina. Sukladno tome, posjeduje veliki potencijal za proizvodnju i uporabu funkcionalnih sastojaka u poboljšanju postojećih i/ili razvoju novih proizvoda prehrambene industrije. Uz navedeno, biomasa luka je potencijalna sirovina za proizvodnju biomaterijala, biogoriva i bioenergije.

Ključne riječi: otpadna biomasa luka, kvercetin, prehrambena vlaka, uporaba

*Ovaj rad je sufinancirala Hrvatska zaklada za znanost projektom
broj IP-2020-02-6878.*

TRANSFORMATION POTENTIAL OF WASTE ONION BIOMASS

Mirna Brekalo^{*}, Marija Stjepanović, Ivica Strelec, Sandra Budžaki

*Josip Juraj Strossmayer University of Osijek, Faculty of Food Technology Osijek,
Franje Kuhača 18, 31000 Osijek, Croatia
^{*}mbrekalo@ptfos.hr*

oral presentation

Onion is one of the most consumed foods in the world, whose biomass after production and industrial processing ends up in landfills, what represent a significant environmental and economic burden, both for the industry and the environment. Accordingly, innovative techniques of onion waste biomass transformation and its depletion are gaining on the importance. Waste onion biomass stands out as a high-value raw material for further use due to its distinctive chemical composition including a high amounts of dietary fibers, minerals, antioxidants, organosulfuric compounds, as well as the dominant flavonol quercetin. Therefore, it has a great potential for the production and the use of a functional ingredients for the improvement of existing and/or development of new food industry products. In addition, onion biomass has a great potential as raw material for the production of biomaterials, biofuels and bioenergy.

Keywords: waste onion biomass, quercetin, dietary fibers, reuse

This work has been fully supported by Croatian Science Foundation under the project IP-2020-20-6878.