



Faculty of Agriculture
University of Banja Luka



XIV INTERNATIONAL SYMPOSIUM ON AGRICULTURAL SCIENCES



BOOK OF ABSTRACTS

26-29 May 2025, Trebinje, Bosnia and Herzegovina

XIV International Symposium on Agricultural Sciences "AgroReS 2025"

26-29 May 2025, Trebinje, Bosnia and Herzegovina

BOOK OF ABSTRACTS

Publisher

University of Banja Luka
Faculty of Agriculture
University City, Bulevar vojvode Petra Bojovića 1A
78000 Banja Luka, Republic of Srpska, Bosnia and Herzegovina

Editors in Chief

Boris Pašalić
Marinko Vekić

Technical Editor

Biljana Kelečević

Edition

Electronic edition

CIP - Каталогизacija у публикацији
Народна и универзитетска библиотека
Републике Српске, Бања Лука

631(048.3)(0.034.2)

INTERNATIONAL Symposium on Agricultural Sciences (14 ; Trebinje ;
2025)

Book of Abstracts [Електронски извор] / XIV International
Symposium on Agricultural Sciences "AgroReS 2025", 26-29 May, 2025,
Trebinje, Bosnia and Herzegovina ; [Editors in Chief Boris Pašalić Marinko
Vekić]. - Onlajn izd. - El. zbornik. - Banja Luka : Faculty of Agriculture =
Poljoprivredni fakultet, 2025

Sistemska zahtjevi: Nisu navedeni. - Dostupno i na:
<https://agrores.agro.unibl.org/archive/books-of-abstracts/>. - Насл. са
насл. екрана. - Опис извора дана 22.5.2025. - Ел. публикација у ПДФ
формату опсега 198 стр.

ISBN 978-99976-84-03-5

COBISS.RS-ID 142629121

P1_05

The Effect of Microbiological Fertilizer Application on the Quality of Apple Fruits

Mira Milinković¹, Svetlana M. Paunović², Aneta Buntić¹, Magdalena Knežević¹,
Jelena Pavlović¹, Vojislav Lazović¹, Dragana Vidojević³

¹ *Institute of Soil Science, Serbia*

² *Fruit Research Institute Cacak, Serbia*

³ *Environmental Protection Agency, Serbia*

Corresponding author: Mira Milinković, miramilinkovic@yahoo.com

Abstract

The influence of the application of microbiological fertilizer on the quality of apple fruits: 'Granny Smith', 'Red Chief', 'Idared', 'Golden Delicious' in the Topola area (Republic of Serbia) was investigated. The uptake of macrolelements, microelements and some heavy metals in the fruits of the above apple varieties was monitored. The application of microbiological fertilizers in apple plantations influenced the higher uptake of P, Mg, K in 'Granny Smith', and the content of Ca and Na increased in the fruits of all other tested varieties compared to untreated plantations. Increased uptake of Mn and Fe was also determined, relative to the content of Cu. Compared to previous results, the application of microbiological fertilizers affected the reduction of Pb, Ni, Cr uptake. The ratio of K/Ca and K+Mg/Ca, which affects the preservation of fruit firmness in storage, was significantly more favorable in the treatments of 'Red Chief' and 'Idared'. The application of microbiological fertilizers favorably affected the quality of apple fruits, and the influence of agroecological growing conditions and assortment on the obtained research results was also noticeable.

Key words: apple, microbiological fertilizers, macro and microelements, heavy metals

Acknowledgment

This research was supported by the Ministry of Science, Technological Development and Innovation of the Republic of Serbia (grant number 451-03-136/2025-03/200011 and 451-03-136/2025-03/200215) and by Biofor System d.o.o.