X INTERNATIONAL SYMPOSIUM ON AGRICULTURAL SCIENCES

BOOK OF ABSTRACTS

BOOK OF ABSTRACTS

X INTERNATIONAL SYMPOSIUM ON AGRICULTURAL SCIENCES

27-29, May, 2021
Trebinje
Bosnia and Herzegovina

BOOK OF ABSTRACTS

X International Symposium on Agricultural Sciences "AgroReS 2021"
27-29, May, 2021; Trebinje, Bosnia and Herzegovina

Publisher

University of Banja Luka
Faculty of Agriculture
University City
Bulevar vojvode Petra Bojovića 1A
78000 Banja Luka, Republic of Srpska, B&H

Editor in Chief

Željko Vaško

Technical Editors

Biljana Kelečević
Danijela Kuruzović

Edition

Electronic edition

CIP - Каталогизација у публикацији

Народна и универзитетска библиотека

Републике Српске, Бања Лука

631(048.3)(0.034.2)

INTERNATIONAL Symposium on Agricultural Sciences "AgroReS 2021" (10 ; Trebinje ; 2021)

Book of Abstracts [Електронски извор] / X International Symposium on Agricultural Sciences "AgroReS 2021", 27-29, May, 2021 Trebinje, Bosnia and Herzegovina ; [editor in chief Željko Vaško]. - Onlajn izd. - El. zbornik. - Banja Luka : University of Banja Luka, Faculty of Agriculture, 2021

Sistemski zahtjevi: Nisu navedeni. - Način pristupa (URL): https://agrores.net/wp-content/uploads/2021/05/AgroReS_2021_Book_of_Abstracts.pdf. - El. publikacija u PDF formatu opsega 137 str. - Nasl. sa naslovnog ekrana. - Opis izvora dana 21.05.2021.

ISBN 978-99938-93-69-1

COBISS.RS-ID 132616961

P1_12

Influence of mineral fertilizers and zeolites application on the yield of some wheat varieties

Milan Biberdzic[1], Dragana Lalevic[1], Sasa Barac[1], Jelena Stojiljkovic[2], Milomirka Madic[3], Vera Rajicic[4]

[1] *University of Pristina in Kosovska Mitrovica, Faculty of Agriculture, Serbia*
[2] *Department of Agriculture Expertize and Consulting, Leskovac, Serbia*
[3] *University of Kragujevac, Faculty of Agronomy, Cacak, Serbia*
[4] *University of Nis, Faculty of Agriculture, Krusevac, Serbia*

Corresponding author: Milan Biberdzic, milan.biberdzic@pr.ac.rs

Abstract

Zeolite is well known for the improvement of the structure of the soil due to the fact that it reduces its acidity, which is of high importance for agricultural production that takes place on soils with low pH values. It has shown exceptional results in improving soil characteristics, thus increasing the yield and quality of cultivated plants. The aim of our study was to determine the yield and some qualitative properties of numerous wheat varieties, depending on the mineral fertilizers and zeolites application. The experiments were performed in 2018/19 and 2019/20, in the area of Southern Serbia (Bojnik). The research involved 4 wheat varieties and 4 variants of fertilization, including mineral fertilizers and zeolite. The research results demonstrated that there were no major differences in the 1000 grains weight, regardless of the variety of wheat or variant of fertilization. The hectoliter grain weight of the wheat variant which was treated with the combination of mineral fertilizers and a higher dose of zeolite was considerably higher than the control variant weight. All fertilization variants had a significantly higher grain yield compared to the control variant. The variant on which the combination of mineral fertilizers and a higher dose of zeolite were applied achieved a significantly higher grain yield compared to the variant with mineral fertilizers. The application of zeolite in combination with mineral fertilizers increased the wheat yield as compared to those that were treated with mineral fertilizers alone, by an average of 370 kg ha-1. In addition to the selection of varieties (Pobeda and Nikol), the application of a combination of mineral fertilizers and zeolites proved to be effective for growing wheat on acidic soils in southern Serbia.

Key words: wheat, NPK fertilizers, zeolite, yield