



**XII INTERNATIONAL SYMPOSIUM ON
AGRICULTURAL SCIENCES**

BOOK OF ABSTRACTS

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**24-26, May, 2023
Trebinje
Bosnia and Herzegovina**

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XII International Symposium on Agricultural Sciences "AgroReS 2023"
24-26. May, 2023; 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

Branimir Nježić and Biljana Kelečević

Technical Editors

Danijela Kuruzović

Edition

Electronic edition

CIP - Каталогизacija y publikaciji
Народна и универзитетска библиотека
Републике Српске, Бања Лука

631(048.3)(0.034.2)

INTERNATIONAL Symposium on Agricultural Sciences (12 ;
Trebinje ; 2023)

Book of Abstracts [Електронски извор] / XII International
Symposium on Agricultural Sciences "AgroReS 2023", 24-26 May,
2023, Trebinje, Bosnia and Herzegovina ; [editor in chief Branimir
Nježić and Biljana Kelečević]. - Banja Luka : Faculty of Agriculture
= Poljoprivredni fakultet, 2023. - 1 USB

Sistemski zahtjevi: Nisu navedeni. - Dostupno i na:
<https://agrores.net/>. - Nasl. sa nasl. ekrana. - Na nasl. str.: AgroRes
2023. - El. publikacija u PDF formatu opsega 260 str. - Tiraž 200.

ISBN 978-99938-93-88-2

COBISS.RS-ID 138380545

PI_06

The importance of hybrids and sowing density on maize yield in the southern part of Serbia

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Abstract

The aim of the research was to examine the influence of sowing density on the yield of more maize hybrids of different vegetation lengths in the conditions of southern Serbia (Leskovac). For this purpose, during 2016 and 2017, an experiment was set up with 6 maize hybrids (ZP 434, NS 4023, ZP 555, NS 5051, ZP 666, NS 6030) and 3 sowing densities (71428; 57142 and 47619 plants ha⁻¹). The experiment was set up according to the random block system in 3 repetitions and was processed by the method of analysis of variance. The results are shown as a two-year average and they showed that the average grain yield for all densities, depending on the hybrid, ranged from 9.33 t ha⁻¹ in the hybrid NS 4020 to 11.16 t ha⁻¹ in the hybrid ZP 555. Hybrids of medium and long vegetation period had significantly higher grain yields than hybrids with a shorter vegetation period. The average yield for all hybrids, depending on the sowing density, ranged from 10.06 t ha⁻¹ at the highest sowing density to 10.66 t ha⁻¹ at the medium sowing density. Hybrids with a shorter vegetation period achieved the highest average yields at the highest sowing density, while hybrids with a longer vegetation period had the highest average yields at the lowest sowing densities. The hybrids ZP 555 and NS 6030 had the highest average yields of 11.77 and 11.02 t ha⁻¹ at medium and lower sowing densities, respectively. Based on this, it is recommended to sow hybrids of medium and longer vegetation period in the range of 57142 to 47619 plants ha⁻¹.

Key words: maize, plant density, vegetation period, yield