

DRUŠTVO GENETIČARA SRBIJE
SEKCIJA ZA OPLEMENJIVANJE ORGANIZAMA

SERBIAN GENETIC SOCIETY
SECTION OF THE BREEDING OF ORGANISMS

DRUŠTVO SELEKCIONERA I SEMENARA
REPUBLIKE SRBIJE

SERBIAN ASSOCIATION OF PLANT
BREEDERS AND SEED PRODUCERS

ZBORNİK APSTRAKATA

X SIMPOZIJUMA DRUŠTVA SELEKCIONERA I SEMENARA
REPUBLIKE SRBIJE

i

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DRUŠTVA GENETIČARA SRBIJE

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BOOK OF ABSTRACTS

X SYMPOSIUM OF THE SERBIAN ASSOCIATION OF PLANT
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AND

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ZNAČAJ PRIMENE TRETMANA SEMENA NA POVEĆANJE POKAZATELJA KVALITETA SEMENA PAPRIKE

Dobrivoj Poštić¹, Rade Stanisavljević¹, Nenad Đurić², Marijenka Tabaković³, Ivana Živković², Aleksandra Stanojković-Sebić⁴, Ratibor Štrbanović¹

¹Institut za zaštitu bilja i životnu sredinu, Beograd

²Institut za povrtarstvo, Smederevska Palanka

³Institut za kukuruz „Zemun Polje”

⁴Institut za zemljište, Beograd

e-mail: pdobrivoj@yahoo.com

Cilj rada je bio da se utvrdi uticaj sorte i tretmana semena na glavne pokazatelje kvaliteta semena tri sorte paprika (Merak, Ordesa i PWC 15001). Ogled je izveden 2022. godine u Laboratoriji za kontrolu kvaliteta semena i sadnog materijala Instituta za zaštitu bilja i životnu sredinu u Beogradu. Kao materijal u ogledu korišćeno je seme sorti paprika proizvedeno u 2022. godini. Tretman semena je izveden sa 1% rastvorom natrijum hipohlorida u trajanju od 10 minuta, zatim je ispirano i osušeno. Ispitivanje klijavosti semena izvršeno je standardnom laboratorijskom metodom na filter papiru navlaženom 0,2% vodenim rastvorom KNO₃ na 4 x 100 semena. Seme je inkubirano 14 dana na temperaturi 20 - 30°C i relativnoj vlažnosti vazduha od 95%. Sedmog dana inkubacije ocenjena je energija klijanja, a 14 dana ukupna klijavost. Zdravstvena ispravnost semena ocenjivana je vizuelnom metodom. Dobijeni rezultati ukazuju da su pojedinačni faktori sorta i tretman semena značajno uticali ($p < 0,01$) na energiju klijanja, ukupnu klijavost i procenat bolesnog semena, dok njihov uticaj na procenat nenormalnog semena nije utvrđen. Takođe, uticaj interakcije faktora na posmatrane pokazatelje kvaliteta semena je izostao. Primenjeni tretman na semenu uticao je u proseku na povećanje energije klijanja i ukupne klijavosti za po 4% kod sve tri ispitivane sorte paprika. Kod sorti paprika utvrđeno je prisustvo samo patogena *Alternaria* sp., čija se zastupljenost kretala od 6 do 9% u varijantama bez tretmana semena (kontrola). Primenom ovog tretmana kod ispitivanih sorti procenat zaraženog semena *Alternaria* sp. se značajno smanjio ispod 5%, što predstavlja zakonski maksimum za stavljanje semena paprike u promet.

Ključne reči: paprika, klijavost, *Alternaria* sp.

Zahvalnica: Ministarstvu obrazovanja, nauke i tehnološkog razvoja Rep. Srbije, Ugovor br. 451-03-47/2023-01

THE IMPACT OF SEED TREATMENT APPLICATION ON INCREASE OF PEPPER SEED QUALITY INDICATORS

Dobrivaj Poštić¹, Rade Stanisavljević¹, Nenad Đurić², Marijenka Tabaković³, Ivana Živković², Aleksandra Stanojković-Sebić⁴, Ratibor Štrbanović¹

¹Institute for Plant Protection and Environment, Belgrade

²Institute for Vegetable Crops, Smederevska Palanka

³Maize Research Institute Zemun Polje

⁴Institute of Soil Science, Belgrade

e-mail: pdobrivaj@yahoo.com

The aim of the work was to determine the influence of variety and seed treatment on the main indicators of seed quality of three pepper varieties. The experiment was carried out in 2022 at the Laboratory for Quality Control of Seeds and Planting Material of the Institute for Plant Protection and the Environment in Belgrade. As material in the experiment, seeds of pepper varieties produced in 2022 were used. The seeds were treated with a 1% sodium hypochlorite solution for 10 minutes, then rinsed and dried. Seed germination was tested using a standard laboratory method on filter paper moistened with a 0.2% aqueous solution of KNO₃ on 4 x 100 seeds. The seeds were incubated for 14 days at a temperature of 20 - 30°C and a relative humidity of 95%. On the seventh day of incubation, the energy of germination was evaluated, and on the 14th, the total germination, that is, the number of typical seedlings. The healthiness of the seeds was assessed by the visual method. The obtained results indicate that the individual factors of variety and seed treatment significantly influenced ($p < 0.01$) the energy of germination, total germination and the percentage of diseased seeds, while their influence on the percentage of abnormal seeds was not determined. Also, the influence of the interaction of factors on the observed indicators of seed quality was absent. The treatment applied to the seeds affected on increase in the energy of germination and total germination by 4% in all three tested pepper varieties. In pepper varieties, the presence of only the pathogen *Alternaria* sp. was determined, whose prevalence ranged from 6 to 9% in varieties without seed treatment (control). By applying this treatment to the investigated varieties, the percentage of infected seeds of *Alternaria* sp. has significantly decreased below 5%, which is the legal maximum for placing pepper seeds on the market.

Key words: pepper, germination, *Alternaria* sp.

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