

DRUŠTVO GENETIČARA SRBIJE  
SEKCIJA ZA OPLEMENJIVANJE ORGANIZAMA

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SERBIAN GENETIC SOCIETY  
SECTION OF THE BREEDING OF ORGANISMS

DRUŠTVO SELEKCIONERA I SEMENARA  
REPUBLIKE SRBIJE

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SERBIAN ASSOCIATION OF PLANT  
BREEDERS AND SEED PRODUCERS

# ZBORNİK APSTRAKATA

X SIMPOZIJUMA DRUŠTVA SELEKCIONERA I SEMENARA  
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i

VII SIMPOZIJUMA SEKCIJE ZA OPLEMENJIVANJE ORGANIZAMA  
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X SYMPOSIUM OF THE SERBIAN ASSOCIATION OF PLANT  
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AND

VII SYMPOSIUM OF THE SERBIAN GENETIC SOCIETY  
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## PRINOS I KOMPONENTE PRINOSA SUNCOKRETA U ZAVISNOSTI OD RAZVIJENOSTI KORENOVOG SISTEMA

Jelena Ovuka<sup>1</sup>, Daliborka Butaš<sup>1</sup>, Miloš Krstić<sup>1</sup>, Sonja Gvozdenac<sup>1</sup>, Dragana Miladinović<sup>1</sup>,  
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Prednost gajenja suncokreta je njegova sposobnost da dobro koristi vodu i hranljive materije iz zemljišta zahvaljujući korenu koji prodire duboko u zemljište, ima dobru usisnu snagu i razvijenost. Prilikom testiranja klijavosti partija semena uočeno je da se u pojedinim godinama kod klijanaca u većoj meri ispoljava nedostatak primarnog korena te je i obavljeno istraživanje sa ciljem da se utvrdi da li ova pojava značajno utiče na prinos, masu 1000 semena i sadržaj ulja tri hibrida suncokreta. Ogled je bio postavljen na dva lokaliteta tokom dve proizvodne godine po split-plot metodu. Parcelice su formirane biljkama razvijenim iz klijanaca sa kompletnim korenom, druga biljkama razvijenim iz klijanaca bez primarnog korena, dok je treća parcelica predstavljala kombinaciju prethodne dve, zavisno od procentualnog učešća klijanaca bez primarnog korena u polaznoj partiji semena. Najveći prinos semena ostvaren je kod useva sa kompletnim korenom, kod hibrida NS-H-111 i Sumo 2 OR i značajno veći u odnosu na prinos useva bez primarnog korena. Masa 1000 semena hibrida NS-H-111 je kao i prinos bila najveća u prvoj varijanti, kod hibrida Oliva u drugoj, dok je kod hibrida Sumo 2 OR najveća vrednost utvrđena kod useva koji je formiran kombinacijom biljaka sa i bez primarnog korena. Značajno najveći sadržaj ulja hibrida NS-H-111 imao je usev bez primarnog korena, dok je kod hibrida Oliva značajno veći bio kod useva sa kompletnim korenom. Kod hibrida Sumo 2 OR značajnih razlika nije bilo. Razvijenost korena je značajno uticala na prinos i komponente prinosa, a utvrđen je i značajan uticaj samog genotipa.

**Ključne reči:** suncokret, koren, prinos, masa 1000 semena, sadržaj ulja

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## INFLUENCE OF ROOT DEVELOPMENT ON SUNFLOWER YIELD AND YIELD COMPONENTS

Jelena Ovuka<sup>1</sup>, Daliborka Butaš<sup>1</sup>, Miloš Krstić<sup>1</sup>, Sonja Gvozdenc<sup>1</sup>, Dragana Miladinović<sup>1</sup>, Sandra Cvejić<sup>1</sup>, Vladimir Miklič<sup>1</sup>

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Sunflower's ability to make good use of water and nutrients from the soil by means of strong root represents its cultivation advantage. During the seed lots germination testing, it was observed that the lack of a primary root is significantly manifested in seedlings occasionally, and research was carried out with the aim of determining whether this phenomenon significantly affects the yield, 1000 seed weight and oil content of three sunflower hybrids. The experiment was set up on two locations during two production years using the split-plot method. The plots were formed by plants developed from seedlings with a complete root, the second by plants without a primary root, and the third was a combination of the previous two, depending on the percentage participation in the initial seed lot. The highest seed yield was achieved in crops with complete roots, and in hybrids NS-H-111 and Sumo 2 OR it was significantly higher. The weight of 1000 seeds was the highest in the first variant at NS-H-111, in the second variant at Oliva, while the highest value was determined in the crop with and without primary roots at Sumo 2 OR. NS-H-111 had a significantly highest oil content at a crop without a primary root, while in hybrid Oliva was in crop with complete roots. In the case of the hybrid Sumo 2 OR, no significant differences were found. Root development had a significant impact on yield and yield components, and a significant influence of the genotype itself was also determined.

**Key words:** sunflower, root, yield, weight of 1000 seeds, oil content

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