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## **IZBOR HIBRIDA SUNCOKRETA NA OSNOVU STABILNOSTI U RAZLIČITIM AGRO-EKOLOŠKIM USLOVIMA**

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Imajući u vidu da je proizvodnja suncokreta u Srbiji ekstenzivna od velike je važnosti odabrati hibride koji će ostvariti stabilan i visok prinos semena i ulja u različitim uslovima spoljašnje sredine. Cilj rada bio je identifikacija najstabilnijih hibrida suncokreta za prinos semena i ulja korišćenjem AMMI modela. Ispitivano je devet novostvorenih hibrida koji pripadaju kategorijama rani, srednje rani i srednje kasni. Hibridi su gajeni na različitim lokacijama u severnom delu Srbije tokom dve vegetacione sezone (2013-2014). Odabrane lokacije jesu geografski bliske, ali različite su u pogledu agro-ekoloških uslova (zemljišta, padavina i temperature), čime su stvoreni specifični mikro-klimatski uslovi za gajenje suncokreta. Grupna analiza varijanse prinosa semena i ulja pokazala je da su glavni efekti, hibridi i spoljašnja sredina, kao i njihova interakcija bili statistički visoko značajni. Biplot analiza je utvrdila da je sredina E3 najstabilnija za proizvodnju suncokreta. Na osnovu rezultata AMMI modela, najmanju interakciju sa spoljašnjom sredinom, odnosno najstabilniji hibridi za prinos semena i ulja bili su NS8 i NS2. Dobijeni rezultati ukazuju da se oba hibrida mogu preporučiti za proizvodnju u različitim sredinama u Srbiji, i to hibrid NS2 kao ranostasan, stabilan za prinos ulja, a hibrid NS8, srednje kasni hibrid, visokog potencijala rodnosti i pogodan za sve sisteme proizvodnje.

**Ključne reči:** suncokret, hibrid, prinos semena, prinos ulja, stabilnost

## SELECTION OF SUNFLOWER HYBRIDS BASED ON STABILITY ACROSS ENVIRONMENTS

Bearing in mind that the sunflower production in Serbia is extensive, it is very important to select a hybrid that will achieve stable and high seed and oil yields in different environmental conditions. The objective of the study was to identify the most stable sunflower hybrids for seed and oil yield using AMMI model analysis. Nine newly developed early, medium early and medium late hybrids were tested. Hybrids were grown in different locations across Northern Serbia during two growing seasons (2013-2014). Selected locations are geographically close, but environmentally different in terms of soil, rainfalls and temperature, thus creating a specific microclimate conditions for sunflower growing. Pooled analysis of variance for seed and oil yield showed that the main effects of hybrids, environments and their interaction were highly significant. Biplot analysis determined that E3 environment was the most stable for sunflower production. According to results of AMMI model, the most stable hybrids for the seed and oil yield, i.e. the lowest interaction with the environment, were NS8 and NS2. The obtained results indicate that both hybrids can be recommended for production in different environments in Serbia, NS2 hybrid as early-growing, stable for oil yield, and NS8 hybrid, medium-late hybrid, high productivity potential and suitable for all production systems.

**Key words:** sunflower, hybrid, seed yield, oil yield, stability

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