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UTJECAJ SUZBIJANJA KOROVA HERBICIDIMA I OBRADOM TLA NA PRINOS OZIME PŠENICE

Branimir Mikić, dipl.ing.agr. (1)

Disertacija (2)

Provedena su istraživanja utjecaja različitih doza herbicida i različitih sistema obrada tla na vrstu korovne populacije, suzbijanje korova, komponente uroda ozime pšenice, prinos ozime pšenice i zbijenost tla na lesiviranome tlu lokaliteta Valpovo tijekom vegetacijskih sezona 2008./09.-2010./11. Pokus je postavljen po split-plot dizajnu u četiri repeticije, s dva tretmana obrade tla (CT-konvencionalna obrada, temeljena na oranju, te RT-reducirana obrada, temeljena na podrivanju) i pet pod-tretmana herbicida (0-kontrola, bez herbicida; H10 - preporučena puna doza herbicida Herbaflex, 2,0 l ha⁻¹; H05 - pola doze Herbaflex-a, 1,0 l ha⁻¹; F10 - preporučena doza herbicida Fox, 1,5 l ha⁻¹, te; F05 - pola doze Fox-a, 0,75 l ha⁻¹). Na tretmanima CT zabilježena je značajno jača zakorovljenost nego na RT tretmanima u izraženo vlažnoj sezoni 2009./10., dok je u sušnijim uvjetima RT bio zakorovljeniji od CT. Na obje obrade tretman 0 je bio najzakorovljeniji, dok je najučinkovitije korove suzbio H10. Viši prinosi u prosjeku su ostvareni na CT u odnosu na RT tretman. Najviši prinos zabilježen je na kontrolnome tretmanu 0, a oba tretmana punih doza herbicida (F10 i H10) smanjila su prinos u odnosu na kontrolu, no statistički značajno jedino unutar RT tretmana. Kako smanjene doze herbicida (F05 i H05) nisu bile statistički različite ni od višega prinosa ozime pšenice postignutoga na kontrolnome tretmanu, niti su imale statistički jaču zakorovljenost od punih doza herbicida (F10 i H10), oba se tretmana obrade tla može preporučiti u uzgoju ozime pšenice, napose u uvjetima sve češćih vremenskih ekstrema nad Sjeveroistočnom Hrvatskom.

Ključne riječi: ozima pšenica, obrada tla, zbijanje tla, kontrola korova, urod

THE IMPACT OF WEED SUPPRESSION BY HERBICIDES AND SOIL TILLAGE AT WINTER WHEAT YIELD

Doctoral thesis

The research of impact of different herbicide dosages and soil tillage systems on weed population, weed control, winter wheat yield, its components and soil compaction has been conducted on luvisol soil type of Valpovo site during growing seasons 2008/09 and 2010/11. The trial has been set up as split-plot in four repetitions, with two soil tillage treatments (CT-conventional tillage, based on mouldboard ploughing, and CH-chiselling and diskharroving, without ploughing) and five herbicide sub-treatments (0-control, no herbicides; H10-recommended dose of Herbaflex (2 l ha⁻¹); H05-half dose of Herbaflex; F10-recommended dose of Fox (1.5 l ha⁻¹); and F05-half dose of Fox). CT treatment had significantly more weed than RT in over-wet season 2009/10., whereas RT had more weed than CT in drought seasons. The control 0 had the most weed occurrence, whereas H10 treatment had the best weed suppression at both soil tillage treatments. Higher yields were achieved by CT in comparison with RT. The highest winter wheat yield has been recorded at control treatment, whereas both full herbicide dosage treatments (F10 and H10) had lower yield, but significantly only within the RT treatment. Since half herbicide dosage treatments (F05 and H05) were not significantly different neither from higher winter wheat yield achieved at control 0 at both soil tillage treatments, nor from less weeded full herbicide dosage treatments (F10 and H10), they can be recommended for winter wheat production, especially in the conditions of more and more frequent occurrence of weather extremes over Northeastern Croatia.

Key-words: winter wheat, soil tillage, soil compaction, weed control, grain yield

(1) Herbos d.d., Nikole Tesle 17, 44000 Sisak (branimir.mikic@herbos.hr)

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