

Analiza prinosa ozime pšenice i šteta od divljači na području Lonjskog polja

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Sažetak

Na hidromelioriranom području u blizini Parka prirode Lonjsko polje provedeno je 2008.g. istraživanje u svrhu procjene šteta na poljoprivrednim površinama od strane divljači i domaćih životinja iz ekstenzivnog stočarstva koje posljednjih nekoliko godina predstavljaju veliki problem intenzivnom uzgoju ratarskih kultura. Analiza procjene prinosa i nanesenih šteta na usjevu ozime pšenice izvršena je na eksperimentalnoj površini veličine 4ha. Prinos ozime pšenice u vegetacijskoj godini 2007./2008. bio je vrlo nizak u usporedbi s dosadašnjim prosjecima za pripadajuće agroekološke uvjete. Razlog tome su, uz nedostatak oborina sredinom vegetacije, bila brojna oštećenja usjeva nastala prohodima svinja u potrazi za zaoranim ostacima kukuruza. Oštećenja su primijećena u nepravilnim uzorcima na cijelom pokusu, te zabilježena digitalnom kamerom na svakoj varijanti. Na osnovi snimaka obrađenih u programskoj aplikaciji ENVI metodom nenadzirane klasifikacije, izrađena je prostorna procjena oštećenja usjeva izražena u postocima oštećene površine od ukupne površine (prosjeck $\approx 19\%$). Izračunata je vrlo jaka negativna korelacija između prinosa ozime pšenice i štete na usjevu. U odnosu na iznos od 4,7 t/ha prosječnog prinosa ozime pšenice u Hrvatskoj 2008.g. te tržišnu cijenu od oko 1,5 kn/kg, prinos ozime pšenice je na pokusnoj površini iznosio u prosjeku 2,3 t/ha. Oštećenja su prosječno smanjila prinos za oko 27%. Prosječni gubitak obzirom na cijenu pšenice iznosi oko 900 kn/ha. Na temelju prikazanih rezultata može se zaključiti da su potrebne hitne mjere zaštite poljoprivrednih površina od ovakvih šteta, te da je nužno pronaći način za obeštećenje poljoprivrednika.

Ključne riječi: ozima pšenica, oštećenja usjeva, divlje svinje, park prirode, prostorna analiza

Evaluation of winter wheat yield and canopy damage caused by wildlife on the area of Lonjsko polje

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Abstract

Field research was carried out on hydromeliorated area near Park of nature Lonjsko polje with aim to evaluate damage on agricultural areas caused by wildlife and livestock from extensive farming. This kind of damage represents a considerable issue in intensive crop production of this region during last few years. Winter wheat yield and canopy damage analysis were implemented on experimental field size of 4ha. In vegetation year 2007/2008, winter wheat yield was very low comparing it with former average values for associated agroecological conditions. The main reason for that, beside lack of precipitation during mid vegetation period, were numerous crop damages caused by wild pigs seeking corn residues from previous crop rotation. Damage was noticed at each field variant in irregular pattern, and was recorded by digital camera. On the basis of acquired photos processed in software application ENVI by unsupervised classification method, a spatial analysis of crop damage was made and expressed by percentage of damage area from total variant area (average $\approx 19\%$). A very strong negative correlation between winter wheat yield and canopy damage was obtained. In comparison with value of 4.7 t/ha of average winter wheat yield in Croatia in 2008, and market price of about 1.5 kn/kg, winter wheat yield obtained on experimental field was in average about 2.3 t/ha. Canopy damages reduced yield for about 27%. Average yield loss due to winter wheat price was calculated to be about 900 kn/ha. According to represented results, it can be concluded that urgent measures for protection of agricultural areas from these damages are needed as well as appropriate procedure for damage compensation to farmers.

Key words: winter wheat, crop damage, wild pigs, park of nature, spatial analysis