

**FOLIAR APPLICATION OF LIQUID ORGANIC FERTILIZER ON THE FORAGE
PRODUCTION OF RED CLOVER (*TRIFOLIUM PRATENSE* L.)**

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Adequate mineral nutrition of red clover is one of the preconditions for the realization of maximum yield potential, especially on acid soils. The field experiment with two cultivars of red clover (K-39 - diploid and Amos - tetraploid) was established on the soil in type of cambisol, using a randomized block design with three replications. The crop was grown in dense planting conditions (20 cm row). The objective of this study was to evaluate the effect of foliar treatment with liquid organic fertilizer (Bioplant flora, Plant DOO, Russia) on forage yield, hay yield, yield components (plant height, number of stem m-2) and the share of water in green forage at the time of harvest. Foliar fertilization was carried once at the phase beginning of intensive growth and the second time, two weeks after, in a concentration of 0.4% and amount of 600 l ha⁻¹ of water. Irrespective of foliar fertilization, variety K-39 had a significantly higher number of stem m-2 and significantly higher yields of forage and hay in relation to tetraploid variety Amos. This is a consequence of the greater tolerance of the variety K-39 on the extreme drought conditions in the period June-October. Foliar application of liquid organic fertilizer affected on a significant increase in plant height cv K-39, which resulted in higher yields of forage and hay (12.1 and 14.7% respectively). It can be connected with the positive effect of biostimulators of the fertilizer on growth and stem elongation. The positive impact of foliar application of organic fertilizer in the conditions of extreme drought at the major part of the vegetation period indicates that this research should be continued or to check the effect of fertilizer under normal production conditions.

Keywords: red clover; foliar fertilization; Bioplant flora

**FOLIJARNA PRIMENA TEČNOG ORGANSKOG ĐUBRIVA U PROIZVODNJI
KRME CRVENE DETELINE (TRIFOLIUM PRATENSE L.)**

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Pravilna mineralna ishrana crvene deteline, naročito na kiselim zemljištima jedan je od preduslova za maksimalnu realizaciju potencijala za prinos. Poljski ogled je sa dve sorte crvene deteline (K-39 – diploidna i Amos – tetraploidna) postavljen na zemljištu tipa gajnjače po potpuno slučajnom blok sistemu u tri ponavljanja. Cilj rada je bio da se u uslovima guste setve (20 cm međuredno) analizira uticaj folijarne prihrane tečnim organskim đubrivom (Bioplant flora, Plant DOO, Rusija) na prinos krme, sena, komponente prinosa (visina biljke, broj izdanaka po m²) i udeo vode u zelenoj krmu u vreme košenja. Folijarna primena đubriva izvršena je jednom na početku intenzivnog porasta i drugi put nakon dve nedelje u koncentraciji 0.4% i količini vode 600l ha⁻¹. Nezavisno od folijarne prihrane, sorta K-39 imala je značajno veći broj izdanaka m² kao i značajno veći prinos krme i sena u odnosu na tetraploidnu sortu Amos. Ovo je posledica veće tolerantnosti sorte K-39 na uslove ekstremne suše u periodu Jun-Oktobar. Folijarna prihrana tečnim organskim đubrivom uticala je na značajno povećanje visine biljake kod sorte K-39, što je uslovalo veći prinos zelene krme i sena (12.1 i 14.7% po redosledu). To se može povezati sa pozitivnim delovanjem biostimulatora koje đubrivo sadrži na porast i izduživanje stabla. Pozitivan uticaj folijarno primenjenog organskog đubriva u ekstremno sušnim uslovima u većem delu vegetacionog perioda ukazuje da bi ova istraživanja trebalo nastaviti odnosno proveriti njegovo delovanje u normalnim uslovima proizvodnje.

Ključne riječi: crvena detelina; folijarno đubrenje; Bioplant flora