Analiza proizvodnje solate (*Lactuca sativa* L.) s primerjavo konvencionalne, integrirane in organske pridelave

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Raziskave Bulluck *et al*. (2002) in Elliot in Mumford (2002) kažejo, da je poleg konvencionalne pridelave zelenjave mogoča tudi pridelava v alternativnih sistemih, ki so za okolje manj tvegani, hkrati pa dajejo zadovoljive gospodarske rezultate. Namen te raziskave je bil, določiti vpliv alternativnih sistemov pridelave (organski in integrirani) ter vpliv endomikorize na vegetativno rast in pridelek solate. V letu 2002 smo v Puli izvedli dvofaktorski poskus, s 3 ponovitvami in split-plot metodo. Glavni faktor (način pridelave) je imel 3 ravni (organski, integrirani, konvencionalni), podfaktor mikoriza je imel 2 ravni (sadike solate inokulirane z endomikorizno glivo *Glomus mossae* in neinokulirane sadike). Na parcelah določenih za organsko pridelavo, je pred solato rasel grah, rastline so bile pokošene in uporabljene za zastor. Druge parcele so bile pokrite s črno polietilensko folijo. Sadike solate cv. Vanity so bile posajene s koreninsko grudo, gnojenje in obdelovanje je potekalo v skladu s temeljnimi načeli organske, integrirane in konvencionalne pridelave. Način pridelave in mikoriza nista vplivala na gostoto rastlin. Največji premer glav solate je bil v integrirani pridelavi (17 % večje kot v organski pridelavi). Inokulirane sadike so imele za 6 % večji premer glav kakor neinokulirane. Tržni pridelek glav solate v integrirani pridelavi je dosegel 13 % večjo maso kot v konvencionalni pridelavi in 30 % večjo kot v organski pridelavi. Mikoriza ni vplivala na povprečno maso tržnega pridelka. Največji pridelek solate je bil v integrirani pridelavi (35,51 t/ha) in se ni statistično značilno razlikoval od pridelka v konvencionalni pridelavi (31,05 t/ha). V obeh sistemih je bil tržni pridelek statistično značilno večji od pridelka v organski pridelavi (21,65 t/ha). Mikoriza ni vplivala na pridelek. Način pridelave in mikoriza nista vplivala na odstotek netržnih rastlin.

ABSTRACT

Analyses of lettuce (*Lactuca sativa* L.) production, comparing conventional, integrated and organic crop management

Along with conventional vegetable production, research of Bulluck *et al*. (2002) and Elliot & Mumford (2002) show the possibility of vegetable production by alternative systems less risky for environment and with the satisfactory economical result. The goal of this research was to determine the influence of alternative systems of crop management (organic and integrated) and endomycorrhiza on vegetative growth and yield of lattice.
During 2002 two-factor trial with three repetitions and split-plot design was set up in Pula. Main factor “crop management” had three levels (organic, integrated and conventional) while the subfactor “mycorrhiza” had two levels (lettuce seedlings inoculated with endomycorrhizal fungus *Glomus mossae* and non-inoculated seedlings). On plots assigned for organic crop management, pea plants grown on the plots before the lettuce were mowed and used as mulch.

Other plots were mulched with black polyethylene film. Lettuce seedlings, cv. Vanity were planted with root ball; fertilization and cultivation measures were performed according to basic principles of organic, integrated and conventional crop management system. Systems of crop management and mycorrhiza did not have effect on plant density. The biggest diameter of heads had lettuce from integrated crop management system (17% bigger than lettuce from organic system). Inoculated plants also had 6% bigger diameter than non-inoculated. Marketable heads from integrated system achieved 13% bigger mass than lettuce from conventional system and 30% bigger than plants from organic system. Mycorrhiza did not influence the average mass of marketable heads. The biggest yield of lettuce was achieved with integrated crop management (35.51 t/ha) and it did not statistically differ from the yield from conventional crop management (31.05 t/ha). Both systems had significantly bigger marketable yield compared with organic crop management (21.65 t/ha). Mycorrhiza did not influence the yield. System of crop management and mycorrhiza did not have influence on percentage of non-marketable plants.