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EFFECT OF BIOLOGICAL AND CHEMICAL FERTILIZERS ON MORPHOLOGY,YIELD AND LAND EQUIVALENT RATIO IN MIXED CROPPING OF ALFALFA AND FENNEL

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To investigate the effect of fertilizer and cultivation alfalfa and fennel inmixed cropping,an experiment was designed in split plot based on randomized complete block with three replications at the Research Field of Shahed University.Fertilizer as the main plot in two levels: (Triple superphosphate) and biofertilizer(nitroxin+ Barvar-2) +50% chemical fertilizer recommendation(Triple superphosphate) and cultivationassub-plot consisted offour levels: sole alfalfa(100% alfalfa), sole fennel(100% fennel), alfalfa 100%+ fennel 50%, alfalfa 100%+ fennel 100%.The results showed thatthe maximumheight offennelwas obtained in sole fennel (100% fennel).Maximum height, number of umbel and branches was obtained inbiofertilizer +50% chemical fertilizer.Theinteraction offertilizer and cultivation, maximum branchesand number of nodes were in alfalfa 100%+ fennel 50% by applying biofertilizer +50% chemical fertilizerand alfalfa100% + fennel 100% by applying chemical fertilizer, respectively. Also,Themaximumyield offennel was observed in sole fennel(100% fennel) by applyingbiofertilizer +50% chemical fertilizerand inMaximumland equivalent ratio(LER)was obtained in alfalfa100% + fennel 100% by applying biofertilizer +50% chemical fertilizer inmixedcropping.

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