

Effects of methanol and zinc foliar spraying on growth, quantitative yield and crude protein content of cowpea (*Vigna unguiculata*)

Abstract

According to the cowpea protein and also with regard to the role of methanol in lowered light breathing and the role of zinc in increasing the performance of this study is to identify the most appropriate of methanol and zinc levels were performed. A factorial experiment in a randomized complete block design with four replications was conducted in 2013 year at the Agricultural Research Center of Zabol University located in Chah Nymeh. The treatments were included different amounts of methanol (0, 12 and 24 volume percent) and zinc (0, 1 and 2 per thousand). Results showed a significant increased effect of foliar application of methanol and zinc on plant height, leaf length, number of pods per plant, seeds per pod, 1000 seed weight, leaf chlorophyll, biological and economic yield, harvest index and crude protein content of cowpea seeds. The highest yield of 24% volume was sprayed so that 52/5 increase over the control was observed and foliar application of zinc the highest yield 2 per thousand zinc was sprayed so that 40/44 increase over the control was observed. The interaction of methanol and zinc on leaf length, leaf chlorophyll and seeds protein at levels of 1% and the height and number of pods per plant was significant at the 5% level. Based on the results research, foliar application 24% methanol with foliar application 2 per thousand zinc for production of cowpea can be Treatment in the region.

Key words: Micronutrient, Crude Protein, Leaf Chlorophyll, Harvest index



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