

## **Effect of nitrogen and phosphorus fertilizer on herb yield and cadmium content of *Hypericum perforatum* L.**

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Unsuitable application of fertilizer can cause inevitable problems such as cadmium and nitrate accumulation in plants , contaminating of the under ground water , lower efficiency of fertilizer and waste of money . In this respect the reserach caried out for the study of nitrogen and phosphorus fertilizer on herb yield and cadmium content of ( *Hypericum perforatum* L.). *St.john's wort* is one of the most important medicinal plant that used in pharmaceutical industry of developing country . Cultivation of the plant developed during recent years in Iran. Results show that higher yield of the plant in the first harvest (3195 g/plot) belong to treatment number seven (N250P0)and the lowest one (2375 g/plot) belong to check treatment . Results on the fresh herb yield of second harvest show no significant difference . All fertilizer treatments increased number offlowering stem significantly at 0.05 level in comparision to control.Results on the cadmium content of the sample show that fertilizer treatments increase cadmium accumulation . There is the lowest content of cadmium (0.091 mg/Kg dry weight) in control and the highest one (0.269 mg/Kg dry weight ) in the treatment number eight (N150P200) . Cadmium content of the sample from treatment number eight was lower than the recomended level (0.5 mg/Kg dry weight ) and therefor there is no harmful effect.