Study on the effects of different level of nitrogen and phosphorus fertilizer on growth, yield and hypericin content of St. John's wort (Hypericum perforatum L.).

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Side effects of synthetic drugs cause extensive use of medicinal plant and therefor several herbal medicine produced recently. St. John's wort is an important one in pharmaceutical industry of developing country. St. John's wort cultivation has been developed in our country during recent years. This research carried out for studying the effects of nitrogen and phosphorus fertilizer on growth, development and hypericin content of the plant by using complete randomozed block design with three replicates. Hypericin content measured by spectrophotometric method on the basis of Hungarian standard. Chlorophyle content measured by Espad-502 chlorophyle meter. Results show that the highest fresh yield in the first harvest (3195 g/plot) belong to N250P0 treatment and the lowest one (2375 g/plot) belong to check treatment. Results of fresh yield of second harvest and dry yield of first harvest show no significant difference. All fertilizer treatments increase the number of flowering stem, hypericin and chlorophyle content of the herb, there is a positive correlation between the flowering stem and hypericin content and between chlorophyle content and hypericin content with R square 0.84 and 0.74 respectively.