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EVALUATION OF MORPHOLOGICAL TRAITS AND HYPERCIN  
CONTENT VARIABILITY OF *HYPERICUM PERFORATUM*  
POPULATIONS IN IRAN

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*Hypericum perforatum* L. is a medicinal plant abounding with secondary metabolites which have clinically proven anti-inflammatory, antiviral, antifungal, and antidepressant activities [1]. The present study was conducted to determine morphological variability of *H. perforatum* sampled from different locations of Iran. 19 populations were evaluated for hypercin content, leaf gland, flower gland, plant height, day to flowering, number of flower, number of sub-branches, Number of flower branches, number of clone, dry weight and fresh weight. Analysis of variance showed significant variation in most of traits among populations. Hypercin content varied from 0.32 g/100gDW to 0.13 g/100gDW in Golestan and Hamedan populations respectively. Number of flower gland varied from 23.17 to 1 in Ziyarat and Sari populations respectively. Number of leaf gland varied from 71.55 and 13.2 respectively. Cluster analysis using UPGMA method separated populations of *H. perforatum* into four distinct groups. The Pearson correlation values was calculated among hypercin content and other traits. positive significant correlation observed between hypercin content and number of flowers, leaf glands and flower glands (0.73, 0.49, 0.67 respectively). Other morphological traits negatively associated with hypercin content. Result supporting that, number of flowers, leaf glands, and flower glands must be at the center of attention in breeding of *Hypericum perforatum* to have much more hypercin content in this plant.

#### References

[1] Philipp, M.; Kohnen, R.; Hiller, K. O. Randomized multicentre study of treatment for eight weeks. *Hypericum perforatum* extract versus imipramine or placebo in patients with moderate depression. 1999, 319: 1534-1539.

