HYPEROSIDE FROM *Trifolium arvense*

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UDC 547.972

From the epigeal part of *Trifolium arvense* L. (rabbit-foot clover) we extracted the flavonoids with 80% methanol. The extracts were evaporated, the aqueous residue was purified with chloroform, and the flavonoid compounds were extracted with ethyl acetate. Three substances of flavonoid nature were detected in the ethyl acetate extract. After recrystallization from methanol, an individual flavonoid was isolated in the form of yellow acicular crystals with mp 234-236°C, R_f 0.62 (BAW, 4 : 1 : 5) and 0.31 (5% acetic acid), $[\alpha]_D$ −58° (c 0.1; CH_3OH). UV spectrum: λ_{max} 255-362 nm. Acid (10% H_2SO_4) and enzymatic (rhamnodiastase) hydrolyses gave the aglycone (68%) — quercetin. D-glucose was found in the carbohydrate part of the glycoside.

On the basis of its physical chemical properties and the results of IR and UV spectral analyses, the substance was identified as hyperoside [1, 2].

The results of a quantitative determination [3] showed that the amount of hyperoside in the herb was 1.3%. The other two flavonoids are present in the plant in very small amount.

LITERATURE CITED

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I. G. Kutateladze Institute of Pharmaceutical Chemistry, Academy of Sciences of the Georgian SSR. Translated from Khimiya Prirodnykh Soedinenii, No. 5, pp. 655, September-October, 1975. Original article submitted May 13, 1975.