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Studies on Comparative Cultivation of Geranium nepalense and G. thunbergii.

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In China and japan, Geranium spp. has been cultivated for medicinal use. A Geranium plant, introduced from Nepal into Japan, was identified as Geranium nepalense SWEET by Kimura and Murata, and its main tannin as geraniin, an active principle of G. thunbergii. In the present work, a comparative cultivation of the two species under the same conditions was performed, and their dry weights and geraniin contents were measured in order to estimate the two species as a medicinal plant. The comparative studies showed that G. nepalense contains more geraniin, but is lower in the plant dry weight than G. thunbergii. It became clear that of the two plants containing geraniin G. nepalense is of practical value.

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Comparative Anatomy of Cultivated G. nepalense and G. thunbergii.

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Geranium nepalense is very similar to Genno-shoko (G. thunbergii) growing wild in various parts of Japan. Whether the two plants are same or not has long been a matter of discussion. According to Pharmacopoeia VI the osigin of GERANII HERBA was G. nepalense, but now it is considesed to be G. thunbergii on the basis of its morphology and the chemical constituents. A microscopic observation was made for the purpose of discrimination of the two cultivated plants: G. nepalense could be distinguished from G. thunbergii clearly with a microscope since G. nepalense is characterized by the pattern of the seed-coat, long non-gladular hairs, tew stomata on the upper epidermis of the leaf and the papillae on the surface of the filament.

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7-Ketologanin, an Iridoid Glucoside from Fruits of Strychnos roborans A. W. HILL.

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Strychnos roborans A. W. HILL (Loganiaceae) is called "Phyamunlek" in Thailand and has been used for medical purposes as an antipyretic etc. There is only report on the chemical components of S. roborans, which describes the detection of some alkaloids (without isolation) in the plant. As part of our continuing chemical studies on medicinal plants of the genus Strychnos, predominant and neutral constituents contained in the fruits of S. roboranse were investigated. An iridoid glycoside was obtained from the methanol extract as a major component and identified as 7-keto-loganin on the basis of the spectroscopic and chemical evidences. The completely assigned ¹H NMR of 7-ketologanin and its tetraacetate and the ¹³C NMR data are reported for the first time.