NOTE

Flavonoids of Melilotus indica

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In the present note, some flavonoids were extracted and isolated from *Melilotus indica* plant.

The flowering branches of *Melilotus indica* (L.) Fabiaceae, a widely distributed herb in Egypt¹, has been used as antispasmodic, and its seeds for diseases of genital organs.² The plant was reported to contain flavonoid aglycones³, and it was also considered to have a nutritive value.⁴ We now report from *Melilotus indica* four known C-glucosides namely orientin, isoorientin, vitexin and isovetexin. The identification of all compounds was achieved through chemical methods and confirmed by UV, MS and NMR spectra.^{5,6}

Plant Materials: Melilotus indica was collected from the Mediterranean coastal strip of Egypt (El-Sallum), in August 1985. A voucher specimen has been desposited in the Herbarium of the National Reasearch Centre, Dokki, Cairo, Egypt.

Extraction and isolation of flavonoids: Dried leaves of Melilotus indica (500 g) were extracted with 80% and then 50% aqueous alcohol, and since the two extracts were chromatographically similar they were combined and concentrated. The aqueous concentrate was subjected to column chromatography using polyamide adsorbant. The compounds were further purified by PPC with BAW on Whatmann 3 MM paper; final purification was achieved over Sepliadex LH-20 in methanol.

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REFERENCES

- V. Tackholm, Flora of Egypt, 2nd Edn., Cairo University, Cooperative Printing Co., Beirut (1974).
- 2. J. Nauroy, Contribution a etude de la pharmacopee marocaine traditionnelle (drogues vegetales), These, Univ. Paris jouve, editeur, Paris (1954).
- 3. E. Wollenweber, K. Lann and K.M. Vetschera, Fitoterapia, 60, 460 (1989).
- 4. C.P. Singh and S.K. Talapatra, *Indian J. Vet. Sci.*, 33, 63 (1963).
- J.B. Harborne, T.J. Mabry and H. Mabry, The Flavonoids, Chapman and Hall, London, p. 642 (1975).
- T.J. Mabry, K.R. Markham and M.B. Thomas, The Systematic Identification of Flavonoids, Springer-Verlag, New York (1970).

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