

**FELAMEDIN AND PRANTSCHIMGIN CONTENT
OF CHLOROFORM FRACTIONS OF *Ferulago isaurica*
AND *F. syriaca* GROWING IN TURKEY**

C. S. Erdurak Kilic and M. Coskun

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Umbelliferae (Apiaceae) is a large family containing mainly coumarins and volatile oils. *Ferulago isaurica* Pesmen is a perennial endemic species, growing only in Alanya, South Anatolia, Turkey [1]. *F. syriaca* Boiss. is a species with a limited distribution throughout Turkey, Syria, Palestine, and Cyprus [2–4]. Turkish local names for these plants are “Caksir” or “Cagsir”. Species of the genera *Ferula* and *Prangos* are also known by these names and though they are reported to have other usages, are mainly used as aphrodisiac in Turkey [5].

Felamedin was first identified from *Ferulago meoides* (L.) Boiss. roots [6]. This was the first representative of a natural benzoylated coumarin, so the authors proposed to call it felamedin.

Prantschimgin was first isolated from *Prangos tschimganica* B. Fedtsch. [7]. It is also assumed to be isolated from *F. meoides*, but the authors could not compare the structure with an authentic sample at that time [8].

Furanocoumarins play a role in the treatment of psoriasis and other dermatological diseases (PUVA-psoralen ultraviolet A range therapy) [9].

Plant materials were collected from the following localities: *F. isaurica*: Alanya, Antalya, 5.9–6 km far from Derince Turn, rocky slopes facing north, 990–1040 m, 16/7/2000, AEF 22956. *F. syriaca*: Hatay, Yayladag Road, on the way to Ziyaret Mountain, rocky slopes, 480 m, 16/7/2002, AEF 22458.

Voucher specimens are deposited at Ankara Universitesi Eczacilik Fakultesi Herbaryumu (AEF), Ankara, Turkey.

Five hundred grams of root material was ground and macerated for 8 hours/3 days with methanol in a water bath not exceeding 60°C, using a Heidolph mechanical mixer (300 rpm). The extracts, filtered and concentrated till dryness, were dispersed in methanol–water (1:9) and fractionated with 400 mL of chloroform, ethyl acetate, and butanol in a separatory funnel, respectively. Each fraction was then concentrated to dryness. Felamedin and prantschimgin were isolated from the chloroform fraction and purified by means of preparative HPLC (detector TOSOH UV-8011 (320 nm), pump TOSOH CCPS, recorder Sekonic SS-100F, isocratic elution with flow rate 3 mL/min, on Cosmosil Packed Column, Silica 10 Ø × 250 mm, mobile phase hexane–ethylacetate (2:1).

As a result of these calculations, felamedin and prantschimgin content of *F. isaurica* chloroform extract of the roots were determined to be 1.51 and 1.17%, respectively; and of *F. syriaca*, 1.68 and 0.91%, respectively.

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