

NOTE

## Carbohydrate Contents of Some Insecticidal Compositae Plants

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The present communication describes the results of chromatographic analysis for sugars from the leaves of *Artemisia vulgaris* and the stems of *Matricaria chamomilla*. The sugars were identified by paper chromatography with the help of authentic samples of sugars.

**Key words:** *Artemisia vulgaris* (leaves, *Matricaria chamomilla* (stems), chromatography, sugars.

*Artemisia vulgaris* is commonly known as Nagadouna in Hindi and *Matricaria chamomilla* is known as Babuna in Punjabi. Both plants belong to family compositae. These plants grow throughout the mountainous districts of India, W. Himalayas, Khasia, Mt. Abu in Marwar, Western Ghats from Konkan southwards to Ceylon and Punjab, Upper Gangetic plain, westwards to the Atlantic, N. Asia and Japan<sup>1-7</sup>.

*Artemisia vulgaris* is useful in the treatment of hysteria, skin diseases and foul ulcers<sup>1-3</sup>.

*Matricaria chamomilla* is useful in the treatment of headache, chest pains, debility, hysteria, dyspepsia and intermittent fevers<sup>4-7</sup>.

In the present communication we are reporting results of chemical investigations carried out for finding the presence of free sugars in the said plants. As a result of this investigation D-glucose, D-arabinose, D-lactose, D-fructose, D-ribose and maltose were found.

The leaves of *Artemisia vulgaris* and stems of *Matricaria chamomilla* were collected from the Himalayan region and Chandigarh.

100 g of air dried, powdered leaves of *Artemisia vulgaris* and stems of *Matricaria chamomilla* were extracted separately in 500 mL beakers on water bath with distilled water for 24 h. The extract was filtered while hot and concentrated under reduced pressure. Spot of the concentrated extract was applied with the help of fine capillary and chromatograms were developed in a butanol-acetic acid-water (4 : 1 : 5 v/v) system.

TABLE-1  
 SOLVENT SYSTEM—BUTANOL : ACETIC ACID : WATER (4 : 1 : 5 v/v)

Spraying reagent: Aniline hydrogen phthalate

<i>Artemisia vulgaris</i>				<i>Matricaria chamomilla</i>			
S.No.	Sugar	R <sub>f</sub> found	R <sub>f</sub> reported	S.No.	Sugar	R <sub>f</sub> found	R <sub>f</sub> reported
1.	D-arabinose	0.17	0.18	1.	D-arabinose	0.147	0.145
2.	D-fructose	0.25	0.23	2.	D-fructose	0.132	0.135
3.	D-glucose	0.17	0.18	3.	D-glucose	0.104	0.105
4.	D-lactose	0.10	0.09	4.	maltose	0.039	0.037
5.	D-ribose	0.33	0.31	5.	D-ribose	0.220	0.210

The perusal of the above observations revealed the presence of sugars as D-glucose, D-arabinose D-lactose, D-fructose, D-ribose and maltose.

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