

NOTE

Carbohydrate Contents of *Boswellia serrata*

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The carbohydrate contents of *Boswellia serrata* have been discussed here.

Boswellia serrata^{1,2} belongs to the n.o. Burseraceae. It is commonly known as *Salai* in Hindi. The Ayurvedic system of medicine reports it to be useful for curing rheumatism and nervous diseases. Its leaves are reported to be rich in essential oil consisting of L-pinene, *p*-cymene, *d*-limonene, α -thienene, terpineol and other terpenes too. It is also reported to provide a very important gum known as oleogum, which is commonly known as *Indian olibanum*.

The plant is distributed in the hilly regions of the country and also occur quite abundantly in the plains of Central India.

In the present communication we are reporting the results of chemical investigation carried out for its carbohydrate analysis. As a result of the investigation the following carbohydrates were reported in the leaves of *Boswellia serrata*: D-fructose, D-lactose, D-glucose, L-sorbose, raffinose and D-galactose.

100 g of *Boswellia serrata* leaves were extracted separately in a 500 mL beaker for 2 h with distilled water. The extract was filtered and concentrated and the spots were applied on Whatman No. 1 filter paper (10 × 40 cm) with the help of fine capillary and the chromatogram were developed in the following solvent systems:

- (i) butanol : acetic acid : water (4 : 1 : 5 v/v)³
- (ii) isobutyric acid³

Aniline hydrogen phthalate was used as a spraying reagent. Presence of each sugar was further confirmed by co-chromatography⁴ using authentic sample.

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TABLE-1

Solvent System: Butanol : Acetic Acid : Water (4:1:5)
 Spraying Reagent: Aniline Hydrogen Phthalate

S.No.	Sugar	R _f found	R _f reported ⁴
1.	D-fructose	0.20	0.23
2.	D-lactose	0.10	0.09
3.	D-glucose	0.18	0.16
4.	L-sorbose	0.22	0.20
5.	Raffinose	0.047	0.05
6.	D-galactose	0.20	0.16

TABLE-2

Solvent System: Isobutyric Acid³
 spraying Reagent: Aniline Hydrogen Phthalate

S.No.	Sugar	R _f found	R _f reported ⁴
1.	D-fructose	0.20	—
2.	D-lactose	0.68	0.70
3.	D-glucose	0.11	0.13
4.	L-sorbose	0.18	0.16
5.	Raffinose	0.10	—
6.	D-galactose	0.16	0.14

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(Received: 10 November 1994; Accepted: 20 January 1995)

AJC-935