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NOTE

Phytochemical Investigations of the Pollens of *Prosopis juliflora*

GOVERDHAN VYAS, M.M. AGARWAL, H.K. PANDEY and N. BHOJAK*
Department of Chemistry, Government Dungar College, Bikaner-334001, India
E-mail: narendarbhojak@rediffmail.com

In this work, the amino acids contents in the pollens of *Prosopis juliflora* have been analyzed.

Key Words: Phytochemistry, Pollens, *Prosopis juliflora*.

Prosopis juliflora, usually a small tree, normally attain a height up to 20 m. Under favourable conditions, it is often reduced to a shrub in very dry situations. Its low branching and bushy form in the early stages, together with its excellent coppicing power, make it a suitable soil binder and wind breaker. It is also grown for shade and hedge. The two important varieties of *Prosopis juliflora* are *uelutina* and *glandulosa*, besides the typical one *chilensis*. The *velutina* is said to be a more useful timber, reaching a height of 16 m and a diameter of 0.6 m, while *glandulosa* is the most popular for afforestation purposes. *Glandulosa* has stout axillary thorns, while the typical variety is usually unarmed. Five forms, *viz.,* Argentine, Arid, Mexican, Peruvian and Australian have been introduced into India[1,2]. Less work has been reported on the analysis of pollens of *Prosopis juliflora*. The present investigations describe the amino acids analysis of pollens of *Prosopis juliflora*.

Isolation of crude protein: 100 g of defatted pollen powder was macerated with brine solution at room temperature. The mixture was centrifuged and supernatant liquid was decanted. The residue was again stirred with brine solution and centrifuged. This process is repeated till the liquid was negative to biuret test. To the combined supernatant, 6 N HCl was added to precipitate the crude protein[3].

Acid hydrolysis of crude protein: 100 mg of crude protein was hydrolyzed by refluxing with 100 mL of 6 N HCl for 15 h at 110ºC. The solution was decolourized by animal charcoal and hydrolyzate was dissolved in water (30 mL), filtered and concentrated to dryness. The excess of acid was removed by repeated dissolving in water and evaporations, finally dissolved in 10 % isopropanol. The solution was subjected to descending paper chromatography developed in the solvent system

n-butanol: acetic acid: water and sprayed with ninhydrin in 95% butanol containing 5 % 2N acetic acid. Amino acids were identified by paper chromatography with authentic samples[4,5]. R_f was determined and reported in Table 1.

TABLE -1
AMINO ACIDS DETECTED IN THE SAMPLES OF POLLENS OF *P. juliflora*

S. No.	Amino acid	R_f reported	R_f obtained
1	Glycine	0.20	0.20
2	Alanine	0.60	0.59
3	Serine	0.18	0.17
4	Isoleucine	0.80	0.79
5	Tyrosine	0.42	0.42

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