

Study of Medicinal Plant *Solanum Virginianum* L. With Phytochemistry in Sirkonda Mandal, Nizamabad District, Telangana State

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Abstract:

The study documents indigenous *Solanum virginianum* used for folk and tribal medicine in Sirkonda Mandal, Nizamabad district medicinal system. We have to take the survey among the village peoples and tribal peoples in concern area. The plant is commonly used for certain diseases like Hair fall, Headache, Scorpion sting, Arthritic pain, Toothache, Kidney stone, Cough and Migraine pain.

Keywords: *Solanum Virginianum*, Ethnobotany, Phytochemistry, Medicinal Plants

Introduction:

Sirkonda is a Town and Mandal in Nizamabad District of Telangana. In India, a mandal is a sub-division of a district. Total area of sirkonda mandal is 349 km². Sirkonda mandal has a population of 51,078 peoples. Sirkonda mandal has a 32 villages and population density of 146.2 inhabitants per square kilometre. Mainly this area is agriculture related. Paddy and Haldi are Major crops.

Fls & Frts.: December-May.

Illus.: Wight, Ic. t. 1401. 1848 *S. jacquini* Willd. Sp. Pl. 1: 1041. 1798.



Lambada, Naikpod, Yerukalas are major tribal groups in the area. Of these, Lambada is found most abundant throughout the area. Besides these tribal groups, several other communities are residing as forest dwellers.

Solanum virginianum Herbs, prostrate or decumbent-ascending, widely branched. Leaves ovate-elliptic, stellately hairy on both sides, prickly on nerves. Inflorescence of extra axillary, few-flowered cymes. Flowers purple. Berries yellow. Seeds numerous.

Materials and Methods:

For documentation of ethnobotanical information and collection of plant material, several tours were undertaken during the period 2024- 2025. Data presented here is based on personal observations and interviews with traditional healers (Viz. Medicine men, Hakims and old aged people) and the methodology used is based on the methods available in the literature (Jain 1989) and (Jain and Mudgal 1999). Ethnobotanical information about

Solanum virginianum was documented in data sheets prepared. For collection of plant material, local informer accompanied to authors. Plant identification was done by using regional flora and flora of adjoining districts (Pullaih and Rao 1995), (Cooke 1958). Plant uses were compared with major published literature (Asolkar et. al. 1992), (Jain 1991, 1996 & 1999), (Kaliappan & Veluchamy 2009), (Kirtika Padalia 2014), (Kirtikar & Basu 1933), (Pradhan et. al. 2005), (Sharma & Singh 2001) and (Velayudhan et. al. 2012).

Results and Discussion:

The present investigation has brought to light certain little known potential ethno medicinal plants of therapeutic value employed to cure Hair fall, Headache, Scorpion sting, Arthritic pain, Toothache, Kidney stone, Cough and Migraine pain. We think that the present status of the economically and medicinally important plants of the study area needs to be determined in order to develop plans for their protection. Proper documentation of indigenous knowledge about the plant could be supportive in achievement of objectives. As every year a considerable amount of foreign exchange is spent for the import of drugs and other products, sustainable utilization of indigenous drug resources in local pharmaceutical and herbal industries will increase the importance of the plant resources of these areas. Utilization of indigenous drug resources will increase the importance of the local industry on one hand and minimize the expenditure incurred on the purchase of foreign drugs on the other.

Ethnobotanical uses of *Solanum virginianum* Uses:

- Hair fall in patches: Fruit pulp mix with Honey applied externally until cure twice a day for Hair fall.
- Head ache: Fruit pulp apply on forehead for head ache.

- Scorpion sting: Root paste applied externally on sting area.
- Arthritic pain: Fresh leaves paste applied externally till cure.
- Tooth ache: Fruit seeds smoke for tooth decay. Leaves juice apply on decayed tooth till cure.
- Kidney stone: Root powder taken orally with Butter milk daily once for seven days.
- Cough: Flower powder 1gram taken orally with honey daily once for seven days.
- Migraine pain: Fresh leave juice pore in nose once a day for three days.

Phytochemicals in *Solanum virginianum*:

- Flavonoids: Quercetin, luteolin, and 3-methoxy apigenin
- Tannins: Quinic acid
- Terpenes: Lupeol, oleanolic acid, and psi. psi carotene
- Phytosterols: Stigmasterol, campesterol, and β -sitosterol
- Ascorbic acid: Found in the fruit extract
- Steroidal alkaloids: Solanacarpine and solamargine
- Caffeic acid: Found in the fruits
- Coumarins: Aesculin and aesculetin
- Carpesterol: Found in the fruits
- Diosgenin: Found in the fruits
- Daucosterol: Found in the fruits
- Cycloartanol: Found in the fruits
- Cycloartenol: Found in the fruits.

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