

## ETHNOMEDICINAL SOLANACEOUS PLANTS OF EASTERN UTTAR PRADESH

VINAY KUMAR<sup>a1</sup> AND MASOOD AKHTAR<sup>b</sup>

Department of Botany, Shibli National P.G. College, Azamgarh, U.P., India

<sup>a</sup>E-mail: vinaykumary6@gmail.com

<sup>b</sup>E-mail : masood.a.f@gmail.com

### ABSTRACT

**An account of 14 species of Medicinal Angiosperms found in the Eastern Uttar Pradesh, is presented in this paper. Nomenclature, Vernacular name(s), phenological Data and uses are provided.**

**KEYWORDS :** Ethnomedicinal, Solanaceae, Eastern U.P.

Ethnobotanical exploration was done in eastern Uttar Pradesh to collect informations about the plants generally used as medicaments among the people of this area. Eastern Uttar Pradesh forms a part of the middle Ganga plains between the Himalayan ramparts in the north and peninsular block in the south. It extends from 80°41'to 84°30'E and 23°45'to 28°30' N and cover an area of about 80,855 sq. km. It includes the administrative divisions of Varanasi, Gorakhpur and Faizabad (excluding Barabanki district) alongwith three tehsils viz. Soraon, Handia and Phulpur in Allahabad district. the eastern and south western boundary of the area is demarcated by the state boundaries of Bihar and Madhya Pradesh respectively while in north it is bound by the international boundary between India and Nepal. In the west, the western boundaries of Bahraich, Faizabad, Sultanpur and Pratapgarh district marks its limits.

The area is situated in a subtropical, continental interior belt of India where the year may be broadly divided into rainy, winter and summer seasons on the basis of meteorological conditions. This condition causes a rich biodiversity in such areas and a lot of plants tend to grow and it becomes necessary for us to know them well (Shivrajan, 1984). The plants can very easily be known by their peculiarities and special features.

During the last three decades or so work has been initiated in several countries for the identification of useful plants. In India, institutions like National Botanical Research Institute (NBRI), Central Institute of Medicinal and Aromatic Plants (CIMAP), Central Council of Research in Ayurveda and Siddha (CCRAS), Central Council of Research in Unani Medicine (CCRUM) etc. are working very proficiently in this field. A number of

workers have provided useful ethnobotanical informations through their publications.

Eastern Uttar Pradesh is floristically very rich. Some attempts have been made on botanical exploration of the area (Srivastava 1976, Srivastava et al., 1987), Srivastava 1993, Siddiqui & Dixit (1975). But no attempt has been made to assess medicinal plants belonging to the families Solanaceae and Convolvulaceae) of the region. In view of the rich floristic diversity, lack of information on medicinal plant wealth and recent changes in political boundaries, present studies were undertaken to assess the diversity of the medicinal flora of the area under study.

### MATERIALS AND METHODS

Field work was performed from 2009-2011 in different seasons, viz pre-monsoon, monsoon and post - monsoon in different forest & local areas of Eastern Uttar Pradesh. Specimens were identified with the help of pertinent taxonomic literature (Duthie, 1960; Chopra et al., 1956; Ali and Dixit, 1989 and Hooker, 1973) and authentic specimens. Coloured photographs have been attached for clear identity.

Medicinal uses of the species by the natives of the above mentioned areas have also been taken into consideration.

### OBSERVATION

The observations of the present work during the survey, the main things which were observed are that the Eastern U.P. is very rich in plant diversity and most of the plants are of medicinal importance. Some elderly people have superficial knowledge of the medicinal prosperities of

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<sup>1</sup>Corresponding author



*Datura innoxia* LA



*Datura metel* L. B



*Lycopersicon esculentum* Mi C



*Physalis minima* L.  
D



*Solanum nigrum* L. E



*Solanum surattense*  
F



*Solanum torvum* Sw. Prodr. G



*Withania somnifera* L. H

Photo Plate 1 : (A-H) of Solanaceous Plants

**Table-1: Medicinal Solanaceous Plants of Eastern Uttar Pradesh**

SN	Botanical Name	Local Names	Family	Fl./Fr.	Medicinal Uses
1.	<i>Atropa belladonna</i>	Belladonna (E)	Solanaceae	Jan.-Jun.	Dried roots and leaves used as a sedative, antispasmodic and anodyne, source of atropine used in eye disease; also used in homeopathic medicine.
2.	<i>Capsicum annum</i>	Mirchi (H)	Solanaceae	Jan.-Jun.	Used in stomachache with acidity, cholera and counter irritants in neuralgia, lumbago and rheumatism.
3.	<i>Datura innoxia</i>	Datura (H)	Solanaceae	July-Nov.	Leaves useful in bronchitis and asthma
4.	<i>Datura metel.</i>	Sadahdhatura (H) Dhustrua (S)	Solanaceae	Sep.-Jan.	Seeds, leaves and roots, given insanity, fever with catarrh, diarrhoea and skin diseases as antiseptic, Dried leaves applied boils sores, rheumatism, lumbago, sciatica.
5.	<i>Lycopersicon esculentum</i>	Tamater (H) Tomato (E)	Solanaceae	Oct.-March	Fruits nutritive, tonic, digestive; soup appetizer.
6.	<i>Nicotiana tabacum</i>	Tambakhu (H) Tobacco (E)	Solanaceae	Nov.-March	Leaves as a sedative, antispasmodic and vermifuge; used in skin troubles and gastrointestinal disorders.
7.	<i>Physalis minima</i>	Jangali Makoe (H)	Solanaceae	July-Jan.	Plants diuretic, tonic, alterative and aperients. Used in drosy, urinary disorders, and enlargement of spleen.
8.	<i>Physalis peruviana</i>	Rasbhari (H) Cape Gooseberry (F)	Solanaceae	Sept.-Feb.	Leaves used in abdominal disorders.
9.	<i>Solanum melongena</i>	Baingan (H), Vartaku (S) Egg. Plant (E)	Solanaceae	July-Feb.	Roots antiasthmatic, Juice employed for otitis. Leaves sialagogue, used in bronchitis, asthma and dysuria. Brunjals given in leaver complaints.
10.	<i>Solanum nigrum</i>	Mokoya (H) Kakamachi (S), Black Nightshade (E)	Solanaceae	Nov.-June	Leave used in rhematic and gouty joints. Berries in drosy. heart diseases, piles, gonorrhoea, enlargement of spleen & leaver.
11.	<i>Solanum surattense</i>	Bhatkattaiya (H), Kantakari (S), Yellow berried Nighshade (E)	Solanaceae	Dec.-June	Used in toothache, cough, rhematism & gonorrhoea. Boiled water of leaves is given in fever, fumes of seeds are inhaled for carious teeth.
12.	<i>Solanum torvum</i>	Banbhant (H)	Solanaceae	Jan.-June	Fruits given in spleen. Liver, cough diseases, Seeds smoke inhaled in toothache.
13.	<i>Solanum tuberosum</i>	Alu (H) Potato (E)	Solanaceae	Jan.-March.	Tuber antiscorbutic, diuretic, glactagogue, Leaf & seeds antimicrobial.
14.	<i>Withania Somnifera</i>	Asgandha (H), Ashwagandha (S)	Solanaceae	Feb.-Apr.	Roots used in rheumatism, hiccup. cough, drosy, female disorders, consumption and debility of old age.

some plants and the methods of their use but a large number of plants are either little known or unknown regarding their medicinal values. Another thing observed during the listing of the plants of ethno-medicinal value collected from this region is that there are 14 plant species having medicinal value and potency to cure animal diseases. Some important Plants of Solanaceae family are mentioned in Photo Plate (A to H).

Present communication provides data about 14 spices of flowering plants. Accepted names, vernacular

names, family, flowering fruiting period, localities and medicinal uses of the species are presented in Table, 1.

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