

Some medicinal plants of Southwest Bengal used for Instant remedy of ailments

Debabrata Das¹ and Pampi Ghosh²

¹Department of Botany, Lalgarh Government College, Lalgarh, Jhargram-721 516 (India)

²Department of Botany, Seva Bharati Mahavidyalaya, Kapgari-721 505 (India)

Abstract

Medicinal plants are a group of plants which have healing properties if applied properly against different ailments. According to the chemical properties found in the plants, all the plants are medicinal but the place and uses of components vary from site to site even from place to place. As we use some plants for remedy of some diseases so that we can call them medicinal plants for instant use. Each and every society uses a large number of medicinal plants from their traditional knowledge but the use and dose of compensation is different. In Southwest Bengal, 13 medicinal plants have been studied which have broad spectrum use value among the people for instant purpose. So, in the present paper, applications of these plants and mode of administrations even conservation status has been presented.

Medicinal plants are those plants which are used widely to cure the ailments where no allopathic or other systems of medicine works. By and large people are very much reluctant to use some medicinal plants though these are available in their vicinity. Good examples are *Tulsi*, *Basak*, *kalmegh*, *Thankuni*, *Ayapana*, *Nim*, *Gime*, *Susni*, *Kulekhara*, *Hinche*, *Chikuni sak*, *Sajne*, *Harjora*, *Nisinda*, *Kesut*, *Bhringaraja*, *Nagdona*, *Haldi*, *Ada*, *Rasun*, *Ada*, *Piyaj*, *Pepe*, *kala*, *Ucche*, *Phutik*, *Khire*, *Sasa*, *Telakucha*, *Biswalakarani*, *Gandha*, *banyalata*, *Apang*, *Kul* and *Jhanti*¹⁻¹⁶.

Study Area :

The use of traditional knowledge was

taken from Purba Medinipur, Paschim medinipur, Jhargram, Bankura, Purulia, Birbhum and Burdwan. The entire tract has a rich flora with home gardens which boosts a large number of medicinal plants of non-forested type though some are available in and around the forest. A good example is *Andrographis paniculata* Nees which is found in the entire forest tract of southwest Bengal. So, the forest, jungle, wasteland, roadside, forest and markets were surveyed to study the medicinal plants in which some have the instant action.

Field survey, questionnaires, collection of samples, study and direct application in field as well as in homestead condition supported the study. Seasonal study and study at different

Table 1 Initial use of plants for remedy of ailments in Southwest Bengal

Name of plants	Details of Plants
1. Ada	<i>Zingiber officinale</i> Rosc: It is used to prepare mixed medicine. In case of Harjora (<i>Vitis</i> sp./ <i>Cissus</i> sp.) this species is used to make the paste. Need cultivation in home garden.
2. Banlanka	<i>Croton bonplandianum</i> Baill. of Euphorbiaceae: Croton is a pure medicine and having anti-coagulating property. It is applied in case of teeth pain and gum swellings. Washed 3-5 raw leaves are chewed and then placed at the base of the gum. Instant remedy for teeth pain, but for swelling 3 times per day followed by 3-4 days get good result. As it is waste land plant so need special attention to conserve such weed.
3. Banyalata	<i>Mikania scandens</i> Willd. of Asteraceae (Fig. 1). It is a plant used to stop bleeding. In case of muscle pain applied as poultice along with common salt and covered by banana leaf. It is exotic and naturalized so no need for protection.
4. Basak	<i>Justicia adhatoda</i> L. of Acanthaceae: Used in cough, 1 young leaf with one tea cup water boiled and make up to volume ¼ th tea cup and applied with a pinch of salt, or ½ tea spoonful honey with a few drops concentrated syrup extracted from young leaf boiled with water swallowed 2-3 times per day up to the cure. No need of protection.
5. Ganda	<i>Tagetas patula</i> L. of Asteraceae: Leaf decoction and poultice applied on cut portion to stop the bleeding also acts as antiseptic agent. In home garden it must be planted year after year.
6. Ghetu Vent.	<i>Clerodendrum viscosum</i> Vent. of Verbenaceae. Leaf decoction used to cure eczema and skin irritation. It is a roadside weed.
7. Harjora	<i>Cissus quadrangularis</i> L. of Vitaceae: A long stem bearing with little or no leaves. It is a better medicine to joint pain or in rheumatism. One inter-node of stem portion is enough to make the medicine. A 5 mm sliced Zinger is used along with black piper (5 Pc) and 10 gm un-steamed rice. A mixture makes a poultice applied on swelling portion and keep the mixture with a bandage for overnight if not cured then followed by successive days. Pimples will arise near the wound or affected area, so need application of ointment otherwise lesion will

8. Janti/Kanta Jhanti	develop. Cultivation or conservation of habitats will conserve the species. <i>Barleria prionitis</i> L. of Acanthaceae: In Eczema and itches of skin leaf decoction or leaf poultice is used 2 times mixed with pure coconut oil. Semi wormed poultice is better than poultice of normal kind. It is a roadside weed, need protection from destruction.
9. Kalmegh	<i>Andrographis paniculata</i> (Burm.f.) Wall.ex Nees of Acanthaceae: It is a medicine used to cure the liver problem which causes bad odour of mouth. 1 gm dry leaf or shoot overnight soaked with water and makes a volume 1 tea cup. At morning it is used as drink in empty stomach and continued for 15 days. In forest and in wasteland the plant is common. Huge collection from field can cause the extinction of species from the habitats, so need special attention and beware from collection during October which will hamper the seed dispersal.
10. Kalo Tulsi	<i>Ocimum sanctum</i> L. of Lamiaceae: Cough for baby. 3-4 drops young twig mashed basil leaf juice with original honey applied once. ½ tea spoon full (baby) thrice a day till the cure. In case of 1-5 year child, 1-2 young leaf or twigs with 2 -3 leaves emerged in honey and applied 3 times per day. In home garden more and more plantation will create a special attention to conserve the species.
11. Kesut	<i>Eclipta prostrata</i> L. of Asteraceae: It is used to make long hairs or to protect hairs from dandruff. Leaf paste is used using water and coloured hairs and makes it dry for 4-5 hours then washed by tap water or by shampoo wash. If more plant is required, cultivation is essential.
12. Tak Kul (Kul)/Ber	<i>Ziziphus mauritiana</i> Lam. of Rhamnaceae: Twigs of <i>Kul</i> or young leaves used to prepare poultice and applied on chalazae. The pimples burst out immediately after the 4-6 hrs of application and then wash and reuse the paste. Repeatedly apply the same over eye lid. <i>Coccinia cordifolia</i> (Telakuncha) may be used in absence of ziziphus jujuba. The population is diminishing by human activities, so need special attention to conserve the species by conserving sites.
13. Telakucha	<i>Coccinia cordifolia</i> Cogn. of Cucurbitaceae: Very important medicinal plants, all parts used for medicinal purpose.

Table 2 Local names of medicinal plants used in the study and references used

Name	Reference No.
1. <i>Ada</i>	Mishra <i>et al.</i> ⁷
2. <i>Banlanka</i>	Jeeshna <i>et al.</i> ⁵ ; Patel <i>et al.</i> ⁹
3. <i>Banyalata</i>	Rufatto <i>et al.</i> ¹³
4. <i>Basak</i>	Dhankhar <i>et al.</i> ¹
5. <i>Ganda</i>	Dixit <i>et al.</i> ²
6. <i>Ghetu</i>	Waliullah ¹⁶ , Singhmura ¹⁴
7. <i>Harjora</i>	Mishra <i>et al.</i> ⁶
8. <i>Janti/Kanta Jhanti</i>	Rajeeva and Rajamanoharan ¹¹ , Reddy <i>et al.</i> ¹²
9. <i>Kalmegh</i>	Hossain <i>et al.</i> ⁴
10. <i>Kalo Tulsi</i>	Thakur <i>et al.</i> ¹⁵
11. <i>Kesut</i>	Parrey, M. S and Ahmad ⁸
12. <i>Tak Kul (Kul)</i>	Preeti and Tripathi ¹⁰
13. <i>Tela kunch (Tito Kundri)</i>	Gill <i>et al.</i> ³ in connection with Ber (<i>Ziziphus jujuba</i> Lam.)

Fig. 1 *Mikania scandens* Willd. (*M. micrantha* Kunth.) on Bamboo thicket

village yards were carried out to know the present scenario and conservation strategy from time to time.

Clerodendrum infortunatum L. appears to be an effective material for the development of antimicrobial drug¹⁶. It has therapeutic

efficacy and also antioxidative and antimicrobial activity. *Croton bonplandianum* has its antimicrobial activity and used by several peoples though their traditional knowledge (Table 1). This plant is a versatile medicinal plant as per the research. Every part of this plant is valuable as medicine. Leaf extract at 124 ppm is better for mosquito control. It is an important mosquito (*Aedes aegypti*) control plant as per study. *Cissus quadrangularis* (Harjora) is used widely to treat bone fracture or in rheumatic swellings. *Barleria prionitis* is another wide spread medicinal plant used as conventional ethno medicinal plants were mostly used for fever, dysentery, skin diseases, poison bites, wounds, piles, diabetes mellitus and rheumatism (Table 2). The root paste of *Barleria prionitis* is applied to cure boils and glandular swellings. *Barleria prionitis* plant (whole) paste is used as gout remedial and applied externally as ointment. *Mikania* leaf used to cure different ailments. Traditional uses of *Eclipta alba* (Syn.-E. prostrate) are scientifically valid over the globe. 12% of the plants out of total 430 species under the genus *Mikania* have been studied well. *M. scandens* (Syn.-*M. Micrantha*) has anti-inflammatory, anti-allergic and analgesic activity¹³. Result revealed that it has its properties like plant growth regulation, anti-fungal and anti-bacterial treatment of itch and Athlete's foot in Jamaica¹³. *Ocimum sanctum* is a traditionally and clinically proved medicinal herb for use. Cardiovascular protection properties exist in the 'tulsi' plant. 'Quinazoline' alkaloid may be used to develop novel natural medicine in near future to treat different diseases. Wound healing activity, anti-allergic activity, immune-stimulant activity, anti-inflammatory activity, anti-ulcer activity of leaves of 'ber' is widely

used among different people. Marigold (*Tagetes petula*) leaves are used to cure wounds². To popularize the medicinal plants in the society special attention is to be paid to conserve the same in near future.

We convey our thanks to field people of different districts for their help. Thanks are also to the Deputy Librarian, Vidyasagar University, Midnapore (W), for giving permission to use Library and Journal Section. Last but not least thanks are to the Head, Nepura Rural Development Society, Mataldanga, for culture and study of these plants. Prof. Dr. N. K. Verma is well acknowledged as he suggested for studying some medicinal plants in Nepura Garden, Paschim Medinipur to study the VAM study on some plants in the home garden as well as in forest areas of Southwest Bengal.

References

1. Dhankhar, S., R. Kaur, S. Ruhil, M. Balhara, S. Dhankhar and A. K. Chillar (2011). *African Journal of Plant Sc.*, 5(11): 620-627.
2. Dixit, P., T. Shalini and N. Verma (2013). *Int. J. of Pharmacy*, 4(1): 43-48.
3. Gill, N. S., P. Kaur and R. Arora (2014). *Int. J. of Advances in Pharmaceutical Research*, 5(4): 234-241.
4. Hossain, Md., Z. Urbi, A. Sule and K.M.H. Rahman (2014). *The Scientific World Journal*, 2014, pp. 28 (doi.: 10.1155/2014/274905).
5. Jeeshna, M. V., T. Mallikadevi and S. Paulsamy (2010). *Journal of Biopesticides*, 3(1 spl.) 192-194.
6. Mishra, G., S. Srivatava, and B. P. Nagori, (2010). *Int. J. Pharm Tech. Res*, 2(2):

- 1298-1310.
7. Mishra, R. K., A. Kumar and A. Kumar (2017). *Int. Jour. of Pharma. & Chemical Sciences*, 1(3): 1422-1427.
 8. Parrey, M. S. and I. Ahmad (2016). *World J. of Pharmacy and Pharmaceutical Sciences*, 5(12): 504-512.
 9. Patel, D., R.N. Patel, R. Bhandari and U. Homkar (2014). *Journal of Entomology and Zoology Studies*, 2(5): 30-372.
 10. Preeti and S. Tripathi (2014). *Int. J. Res. Dev. Pharm. L. Sci.*, 3(3): 959-966.
 11. Rajeeva, P. and S. Rajamanoharan (2013). *Int. J. of Herb. Medicine*, 1(6): 22-30.
 12. Reddy, K.N., G. Trimurthulu and Ch. S. Reddy, (2010). *Indian Jour. Traditional Knowledge*, 9(1): 184-190.
 13. Rufatto, L. C., A. Gower, J. Schwambach, and S. Moura (2012). *Braz. J. Pharmacogn.*, Aop 09312: 1-20.
 14. Singhmura, S. (2016). *J. Pharm. Sci. Innov.*, 5(3): 80-84.
 15. Thakur, R.N., S. S. Gangwar, R. Shirma and A. Tilak (2017). *Imperial Jour. of Interdisciplinary Research*, 3(1): 1539-1543.
 16. Waliullah, T.M., A.M Yeasmin, AAshraful, I. M. Wahedul and H. Parvez (2014). *Int. Res. J. Phaarm*, 5(2): 57-61.