

Research Documents with New Comments 1

Introductory Note

This series is an effort to present the updated research documents with information collected through recent Ethnobotanical surveys (December 2010 onwards).

Kands of Chhattisgarh, India, III. Bilai kand (*Ipomoea digitata*; Convolvulaceae)

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<http://www.pankajoudhia.com/RA2.pdf>

Beginners always feel it difficult to separate Bilaikand from Bidarikand (*Pueraria* sp.). Many times, the herb collectors also supply wrong material in the name of Bilaikand. Chhattisgarh is one of the leading states in India that supplies major quantities of Bilaikand in national and international drug markets. It is one of the valuable non-wood forest produces of Chhattisgarh having high demand.

The natives use this climber as fodder as well as for ornamental purpose. The traditional healers of Chhattisgarh are well aware of its natural occurrence but they use it as folk medicine less frequently. In general, it is given to the female patients to increase the flow of milk in mammary glands. The roots are used as medicine mainly. Many healers use it in liver complaints in combination with other herbs. The herb collectors and traders supplying the herb at national and international levels are not aware of its end uses. The local pharmaceutical companies are not using this herb in medicinal formulations. It is used as adulterant to Bidarikand. Botanically, Bilaikand (*I. digitata* syn. *I. mauritiana* syn. *Batatas paniculata*) is perennial herb having large and ovoid roots; stem long, thick and twining; leaves 10-15 cm long, often broader than long, deeply palmately divided lobes 5-7, ovate-lanceolate, entire, pale, glabrous; Flowers in many flowered corymbosely paniculate cymes, peduncle solitary axillary; purple, long; Fruits capsule, four-celled, four-valved, enclosed in fleshy sepals; seeds clothed with brown cotton hairs, Flowering time July to November in Chhattisgarh conditions.

As mentioned earlier, as medicine, roots, leaves and rarely flowers are used. Bilaikand holds a reputed position as medicine in different systems of medicine in India. According to Ayurveda, root is cooling, indigestible, tonic, aphrodisiac, galactagogue, diuretic, stimulant, alterative and useful in leprosy, burning sensation, vomiting, blood disease. It improves voice and complexion. Flowers cause biliousness. According to Unani system of medicine, root is heating, dry, carminative, expectorant, anthelmintic, stomachic, appetiser, and useful in treatment of syphilis, gonorrhoea and inflammation. Leaves enrich the blood.

New Comments added on December 6, 2010

Through recent Ethnobotanical surveys I have collected information about thousands of Traditional Formulations in which Bilaikand is added as primary, secondary and tertiary ingredients.

Use of Bilaikand with Telia Kand: In order to increase resistance power in body the Traditional Healers use Bilaikand with different types of Telia Kand. Please see Table below for details.

Different Types of Telia Kand	Primary/Secondary/Tertiary Ingredients in Bilaikand based Formulations	Information collected from
Telia Kand Type 1	Primary	Chhattisgarh Plains
Telia Kand Type 2	Primary	Chhattisgarh Plains
Telia Kand Type 3	Primary	Chhattisgarh Plains
Telia Kand Type 4	Secondary	Chhattisgarh Plains
Telia Kand Type 5	Tertiary	Chhattisgarh Plains
Telia Kand Type 6	Primary	Southern Chhattisgarh
Telia Kand Type 7	Tertiary	Southern Chhattisgarh
Telia Kand Type 8	Primary	Chhattisgarh Plains
Telia Kand Type 9	Tertiary	Southern Chhattisgarh
Telia Kand Type 10	Primary	Chhattisgarh Plains
Telia Kand Type 11	Primary	Southern Chhattisgarh
Telia Kand Type 12	Primary	Chhattisgarh Plains
Telia Kand Type 13	Secondary	Chhattisgarh Plains
Telia Kand Type 14	Primary	Chhattisgarh Plains
Telia Kand Type 15	Secondary	Southern Chhattisgarh

[Source: CGBD database]

The Traditional Healers of Chhattisgarh Plains use [Traditional Allelopathic Knowledge](#) to enrich both Bilaikand and Telia Kand with desired medicinal properties. I have documented information about over 60 Herbal Solutions. Both plants are treated with these Herbal Solutions during morning time. In general they use the herbs growing in surroundings for this purpose. The Healers of Southern Chhattisgarh use [Shorea robusta](#) locally known as Sarai, based Herbal Solutions for this purpose.

When they use both plants in treatment of different types of cancer they use Herbal Solution prepared from different types of Orchids. Orchids are collected on specific day and time. They prefer use of freshly prepared solution. Both leachate and extracts are used but seeing the decreasing population of Orchids they prefer use of leachate. By adding other herbs they make the solutions enough strong.

While documenting Traditional Medicinal Knowledge about unique Cancer formulation the Healers of Southern Chhattisgarh use I noted that Telia Kand Type 3 is used with Bilaikand as main ingredient in this formulation but surprisingly the Healers claim that the other herbs present

in this formulation also play important role in making the formulation effective. Without these herbs formulation is considered incomplete and vice-versa.

Please see Table below for twenty selected formulations used in treatment of cancer. These formulations are considered incomplete without Telia Kand and Bilaikand.

Cancer Formulations	Presence of Bilaikand and Telia Kand as Primary/Secondary/Tertiary Ingredients	Number of other herbs present in Formulations
Cancer Formulation No.1	Primary	18
Cancer Formulation No.2	Secondary	10
Cancer Formulation No.3	Secondary	25
Cancer Formulation No.4	Primary	7
Cancer Formulation No.5	Primary	7
Cancer Formulation No.6	Primary	11
Cancer Formulation No.7	Primary	30
Cancer Formulation No.8	Primary	42
Cancer Formulation No.9	Primary	43
Cancer Formulation No.10	Secondary	55
Cancer Formulation No.11	Primary	8
Cancer Formulation No.12	Secondary	15
Cancer Formulation No.13	Secondary	9
Cancer Formulation No.14	Primary	6
Cancer Formulation No.15	Primary	111
Cancer Formulation No.16	Primary	156
Cancer Formulation No.17	Primary	22
Cancer Formulation No.18	Primary	21
Cancer Formulation No.19	Secondary	16
Cancer Formulation No.20	Secondary	26

[Source: CGBD database]

Few months back a group of Traditional Healers from Jharkhand met me. While interaction they informed that there are many Traditional Formulations in use in their state having different types of Telia Kand and Bilaikand as important ingredients. I have kept the name of Telia Kand first in previous sentence because they consider Telia Kand more important in terms of medicinal properties as compared to Bilaikand. It was interesting information.

A Naga Sadhu from Haridwar visited to Chhattisgarh for [Rajim Kumbh](#) informed that Bilaikand is used in hundreds of formulations and in many formulations with different types of Telia Kand. He also informed that in Bilaikand and Telia Kand based Formulations different species of

Habenaria viz. Habenaria intermedia, Habenaria acuminata, Habenaria longicornu etc., play important role. In these Formulations Melaxis wallichii and Melaxis muscifera are also added. I shared information about Traditional Formulations I collected through my surveys and thanked him for information of Himalayan Formulations.

I receive tens of letters every month from North India complaining about fake Telia Kand and Bilaikand available in market. Many Traditional Healers ask about its identification methods. The identification is very simple. I suggest them to send samples. I have identified tens of samples and also hundreds of adulterants. It is not wrong to say that Tantriks are becoming curse for both of these herbs. Both herbs can save millions of life but people engage in Tantra activities collect it from forest and sell to their customers to keep it in closed box. We are losing both herbs at alarming rates. There is need to free the herbs from closed boxes and make available for the patients.

I received interesting phone call from Rajasthan from son of Traditional Healer. He informed that his late father was using many formulations having Bilaikand and Telia Kand but due to non-availability of these herbs now he is unable to use these formulations for his patients. I asked about the quantity required on monthly basis and after getting reply forwarded the addresses of some suppliers. Last month I received his phone call again. He informed that now he has started using the old Formulations and treating the patients successfully. In return of my help he disclosed some of formulations. I found these formulations very similar to formulations used by the Healers of Central India.

Few years back I received interesting letter from Maharashtra with information about Bilaikand and Telia Kand based formulations. I found the sample of Telia Kand sent with the letter different from Telia Kand present in Chhattisgarh. I named it as Telia Kand MS for reference. I presented the sample to Traditional Healers of my state using similar formulations. They tried it with much success and asked for more Telia Kand MS. It was very difficult to arrange it again but I assured them to try my best. Later I sent samples of Telia Kand collected from forest to Traditional Healer of Maharashtra. Now he is trying it on his patients. It was surprising to know that the forest officers from his region provided translated version of my online articles and helped in writing letter to me. I am expecting more constructive information in future. He invited me to visit Kaas Plateau for month long surveys. To motivate me he sent long list of herbs present in Kaas with its Traditional uses. It was priceless gift for me. I have accepted his invitation and now planning to visit Kaas in season when less number of tourists will be there. As you know, Kaas Plateau is facing a tremendous pressure of Tourists and this pressure is becoming curse for native flora.

While travelling to Patalkot from Chhindwara in early nineties, there was lot of discussion on both herbs but at that time I was not much aware of its Traditional uses. Very recently I got success in reestablishing links with that group. I have shared some formulations from my database and waiting for their response.

Use of Bilaikand with Linseed (*Linum usitatissimum*): The Traditional Healers specialised in use of Alsii (Linseed) as medicine are in much worry by seeing the increasing popularity of Linseed among common people. They always warn that it must be taken under supervision of

experts. Only experts can decide whether it is beneficial for specific person or not. There must not be general recommendation. I have mentioned in previous research articles that the Healers consider wrong use of Linseed as root cause of atleast 10 deadly diseases. During recent surveys they added more diseases in the list. It is matter of worry. Through my surveys I have identified over 150 medicinal herbs having potential to nullify the harmful effects of Linseed. These herbs can be taken with Linseed. The Healers of Chhattisgarh Plains where Linseed is important winter crop suggest use of 20 winter herbs. “It must not be taken with Linseed but on the same day atleast three hours after taking Linseed.” They added.

In list of over 150 herbs the name of Bilaikand is also present. “One can use Bilaikand in different forms based on taste and preference but it must go inside body on the same day when Linseed is used.” They informed. It is very important information.

Use of Bilaikand with Cordyceps sinensis: The Traditional Healers of Chhattisgarh Plains treat Bilaikand with different herbal solutions and with the help of Traditional Allelopathic Knowledge enrich it with desired medicinal properties. When they use it with famous Keeda Jadi i.e. Cordyceps sinensis, they use twenty different types of Bilaikand. Bilaikand and Keeda Jadi are mixed in different proportions and other medicinal herbs are added to prepare different formulations. Please see the Table below for details about these formulations.

Traditional Formulations	Bilaikand Types	No. of other medicinal herbs
Traditional Formulation No.1	Bilaikand Type 14	213
Traditional Formulation No.2	Bilaikand Type 1	18
Traditional Formulation No.3	Bilaikand Type 15	56
Traditional Formulation No.4	Bilaikand Type 17	9
Traditional Formulation No.5	Bilaikand Type 7	9
Traditional Formulation No.6	Bilaikand Type 6	7
Traditional Formulation No.7	Bilaikand Type 4	25
Traditional Formulation No.8	Bilaikand Type 5	19
Traditional Formulation No.9	Bilaikand Type 3	60
Traditional Formulation No.10	Bilaikand Type 18	35
Traditional Formulation No.11	Bilaikand Type 20	33
Traditional Formulation No.12	Bilaikand Type 19	20
Traditional Formulation No.13	Bilaikand Type 16	18
Traditional Formulation No.14	Bilaikand Type 12	35
Traditional Formulation No.15	Bilaikand Type 11	20
Traditional Formulation No.16	Bilaikand Type 9	7
Traditional Formulation No.17	Bilaikand Type 13	5
Traditional Formulation No.18	Bilaikand Type 8	4
Traditional Formulation No.19	Bilaikand Type 10	15
Traditional Formulation No.20	Bilaikand Type 2	19

[Source: CGBD database]

The Healers depend on Herb Vendors of North India for Keeda Jadi. As it is very costly item in return the Healers give rare herbs to the Herb Vendors. The old Barter system is still in existence. I have mentioned in previous research articles that many senior Healers claim about presence of Keeda Jadi type Mushroom in wild in Central India. I have written a lot about their observations with pictures somewhere else.

Bilaikand is not under cultivation as medicinal crop. In my allelopathic studies, I have found different parts of Bilaikand specially the leaves, having the negative (Stimulatory) allelopathic effects on germination and seeding vigour of major grain crop rice. I have found it more promising as compared to the leaves of Beshram (*Ipomoea carnea*). The leaf extract is found effective in case of presowing soaking treatment of rice seeds. Like the leaf extract of *Ipomoea carnea*, the leaf extract of Bilaikand can be used successfully in management of rats. The chickpea seeds, a favorite food for rats, can be soaked with the extract to make it poisonous for rats. With the help of innovative herb growers, we are trying Bilaikand herb in organic production of medicinal and aromatic crops. As the natural forest of Chhattisgarh is full of this valuable herb, there is a tremendous scope for Bilaikand based drug units in Chhattisgarh. These units will be the boon for all communities from herb collectors to traders. To establish it as promising herb, I am trying hard to collect more information on its ethnobotanical uses in Chhattisgarh.

New Comments added on December 7, 2010

In recent studies on Allelopathy, I tried Bilaikand extracts on different Medicinal Rice including Tenduphool with encouraging results.

With the help of innovative farmers we are trying to develop methods for commercial cultivation.

Thank you very much for reading the article.

Citation

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