This section contains details of herbal preparations used traditionally for various ailments and products based on such traditional knowledge.
Uses of *Achyranthes aspera* L. (Chirchiri)

**NIF Database**

**Uses from Chhattisgarh**

**Tuberculosis**
Take the plant powder (5g) orally along with honey
- *Sukhbati Netam*, Kanker, Chhattisgarh

**Poisonous bite**
Take the root powder orally with pinch of sugar
- *Netaram Sahu*, Durg, Chhattisgarh

**Uses from other states**

**Toothache**
Rub fresh leaves on the teeth
- *Apsari Sahoo*, Dhenkanal, Orissa

**Scabies**
Apply root powder along with a pinch of salt on the affected part
- *Jagdish Dash*, Bargarh, Orissa

**Fever**
Grind roots (5g) with half black pepper into a fine powder. Take the powder orally
- *Rajkishor Prasad*, Sheohar, Bihar

**Hemorrhoids**
Take a spoonful of dried root powder on an empty stomach till the ailment cures
- *Vishwanath Mahato*, East Champaran, Bihar

**Intestinal worms**
Extract juice from the inflorescence, boil it with milk till it becomes thick. Take it orally with a little amount of asafetida
- *Sarasamma Rajappan*, Idukki, Kerala

**Poisonous bite**
Take the fresh juice of the branch
- *Hemlata Balutia*, Nainital, Uttarakhand

**Abscess**
Apply the root paste topically
- *Ravi Uraav*, Hazaribag, Jharkhand

**Uses in Classical Codified Literature**

Dried aerial parts are taken orally in the case of diabetes\(^1\); powder made from the dried plant is given orally to treat whooping cough\(^2\); decoction of the plant is used as a laxative\(^3\) and is also applied externally on boils and pimples\(^3\).

Product ’Cystone’\(^4\) is made from this plant, which inhibits calculogenesis by reducing stone-forming substances like oxalic acid, calcium hydroxyproline and prevents urinary tract infections. Thirty five patents have been found on the medicinal applications of *Achyranthes* mainly for curing laryngopharyngitis\(^5\), and bronchial asthma\(^6\).
Uses of *Annona squamosa* L. (Sitaphal)

**NIF Database**

**Use from Chhattisgarh**

**Head lice**
Apply the seed paste on the scalp
- Gaudavari Dhruv, Dhamtari, Chhattisgarh

**Uses from other states**

**Dandruff**
Apply the leaf paste on the scalp
- Jitendriya Panigrahi, Balugaon, Orissa

**Hair care**
Apply the leaf paste on the hair
- Sana Parvin, Mandu, Jharkhand

**Head lice**
Apply the seed powder on the scalp
- Madhav Rao Shankar Rao Patil, Jalgaon, Maharashtra

**Cough**
Smoulder the powder of annona and date palm seeds to inhale the smoke for relief
- Ramdas Ghanshyamdas Patel, Nasik, Maharashtra

**Diabetes**
Take four tea spoonfuls of the fruit powder orally every morning on an empty stomach
- Shantanu Gupta, Kota, Rajasthan

**Abscess/boils**
Apply the fruit paste over the affected part
- Naganath Durga Chogule, Sholapur, Maharashtra

**Uses in Classical Codified Literature**

Ripe fruit is considered as an anthelmintic; extract from leaves and fruit is administered orally to get rid of rheumatic pain and the paste of leaves is applied on the head to kill head lice. Product ‘LICEX Headlice Expeller’ is a multi-herb formulation that removes headlice and nits. Nine patents have been found on its various medicinal uses such as an antiretroviral and for scalp care.
Uses of *Butea monosperma* (Lamk.) Taub. (Palash)

**NIF Database**

**Use from Chhattisgarh**

**Veterinary practice**

Cuts and wound
Feed the bark juice to the animal for quick healing
- Sevaram Bhaskar, Dhamtari, Chhattisgarh

**Uses from other states**

**Hair lice**
Apply the leaf juice on the scalp
- P. D. Walikar, Bagalkot, Karnataka

**Acidity**
Tie poultice made from cooked lukewarm flowers over the abdomen
-Madhav Rao Shankar Rao Patil, Jalgaon, Maharashtra

**Cuts & wounds**
Apply the bark juice topically
- Dinesh Bediya, Ranchi, Jharkhand

**Toothache**
Apply the resin powder on the affected gums
- Bhomabhai Damor, Banaskantha, Gujarat

**Joint pain**
Take the resin powder with milk
- Devaram, Sirohi, Rajasthan

**Uses in Classical Codified Literature**

Bark is used as poultice for pimples\(^{12}\); bark juice is given orally to cure intestinal worms\(^{13}\). ‘Lukol’\(^{4}\) has a stimulatory action on the endometrium and improves uterine circulation. ‘Hair Loss Cream’\(^{14}\) improves tensile strength of hair and increases hair density. Ten patents have been found on its medicinal uses for bone disorders\(^{15}\), skin care\(^{16}\) etc.
Uses of *Carica papaya* L. (Papita)

**NIF Database**

**Use from Chhattisgarh**

**Throat pain**
Put the fruit latex (3 drops) in a glass of water, leave for sometime and gargle for immediate relief
- Devesh Kumar Bhandavi, Dhamtari, Chhattisgarh

**Uses from other states**

**Lactogogue**
Eat the ripe fruit
- Kalia Behera, Bargarh, Orissa

**Cuts & wounds**
Apply the leaf paste topically
- Jongam Ngemu, Papum Pare, Arunachal Pradesh

**Jaundice**
Take the root decoction thrice a day along with some other herbs
- Yanueg Jamoh Lego, East Siang, Arunachal Pradesh

**Toothache**
Keep cotton dipped in the latex of the stem on the aching tooth
- Mangeram Jani, Hissar, Haryana

**Intestinal worms**
Take fresh latex mixed with honey orally
- Prabhat Kumar Pandey, East Champaran, Bihar

**Constipation**
Take fruit to get relief
- Leelamani Devarajan, Idukki, Kerala

**Ringworm**
Apply the milky latex on the affected area
- Mukesh Kumar, East Champaran, Bihar

**Kidney stone**
Take the root juice orally
- Sandhya Suman, Sitamarhi, Bihar

**Hydrocele**
Make a paste of latex and tender fruit. Give one teaspoon thrice a day till the ailment cures.
- Dimbeswar Gogoi, Sibsagar, Assam

**Veterinary practice**

**Lactogogue**
Feed fruits daily to enhance milk production
- Manoj Kumar, Madhubani, Bihar

**Uses in Classical Codified Literature**
Decoction of the flower is used as cardiotonic\(^{17}\); bark powder is applied externally on wounds\(^{18}\); decoction of the bark is given orally to get rid of intestinal worms\(^{19}\); beverage of the fruit is taken orally to cure diarrhoea\(^{20}\). Natural moisturizers and creams\(^{21}\) are prepared from *Carica* in combination with other plants. Thirty patents were found on its medicinal uses as an antiallergic\(^{22}\) and for prevention of cancer\(^{23}\).

Source: [http://utenti.lycos.it/piantetropicali/Carica_papaya.jpg](http://utenti.lycos.it/piantetropicali/Carica_papaya.jpg)
Uses of *Dalbergia sissoo* Roxb. ex DC. (Shisam)

**NIF database**

**Uses from Chhattisgarh**

**Stomachache**
Take two spoonful of the fresh leaf juice orally along with a pinch of salt or sugar once a day
- *Pancham Kaivat, Bilaspur, Chhattisgarh*

**General debility**
Take the fresh leaf juice orally along with sugar
- *Pancham Kaivat, Bilaspur, Chhattisgarh*

**Uses from other states**

**Abscess**
Apply the leaf paste topically
- *Neha Kumari, East Champaran, Bihar*

**Dysentery**
Take the leaf juice orally
- *Avinash Kumar, Sitamarhi, Bihar*

**Leucorrhoea**
Take four spoonful of fresh leaf juice orally with buttermilk
- *Jagjeet Bahadur, Sitapur, Uttar Pradesh*

**Itching**
Apply the seed oil topically
- *Lalit kumar, Bulandshahar, Uttar Pradesh*

**Uses in Classical Codified Literature**

Seed oil is used to get relief from rheumatic pain\(^2^4\); leaf paste is applied on the forehead of the patients suffering from sunstroke\(^2^4\); and decoction of dried wood bark is given orally to get rid of intestinal worms\(^2^5\). Product ‘Jiva Sattva Skin Health Care Pack’\(^2^6\) is sold for skin ailments. Three patents have been found on its medicinal applications mainly on gastrointestinal disorders\(^2^7\) and diabetes\(^2^8\).
**Uses of *Eucalyptus globulus* Labil. (Nilgiri)**

**NIF Database**

**Uses from Chhattisgarh**

**Headache**
Apply the fruit paste on forehead
- Vidyasagar, Dhamtari, Chhattisgarh

**Stomachache**
Take the fruit juice orally
- Vidyasagar, Dhamtari, Chhattisgarh

**Constipation**
Extract juice from soaked fruit and take orally
- Vidyasagar, Dhamtari, Chhattisgarh

**Uses from other states**

**Tooth cavity**
Gargle the decoction of leaves
- Rajdip Kaur, Patiwala, Punjab

**Stomach disorders**
Soak fruits in a glass of water overnight. Next morning crush it with hands and take the filtered solution orally
- Maksudh Ansari, Giridih, Jharkhand

**Wound**
Apply the oil topically
- Taiyaz Ahmad, East Champaran, Bihar

**Uses in Classical Codified Literature**

Apply leaves’ paste on forehead to get rid from headache, use oil to cure skin diseases and to treat burns, apply leaf decoction to get rid of body ache and malaria.

‘Eucalyptus leaf aromatic water’ is excellent antiseptic and is used as inhalation for colds, sinusitis and general catarrh. ‘Muscle and joint rub’ cream is prepared in combination of other ingredients for relieving pain in muscle and joints. Herbal Trim Skin Treatment provides essential moisture benefits to smooth and soften chafed, chapped, and dry skin. Forty patents are available on its medicinal properties like for ointment for burn, anti-inflammatory properties, etc.
PART II : HERBAL PRACTICES & PRODUCTS

Uses of *Nyctanthes arbor-tristis* L. (Harshingar)

NIF Database

Use from Chhattisgarh

Fracture
Apply the leaf and bark paste over the fractured area and wrap tightly with a cloth
- Ramsharan Dhruv, Dhamtari, Chhattisgarh

Pain
Apply the leaf paste on fractured part to alleviate pain
- Ramsharan Dhruv, Dhamtari, Chhattisgarh

Uses from other states

Hair fall
Apply the paste of seeds on the scalp
- Rani B. Bhagat, Pune, Maharashtra

Cough/cold
Take the paste prepared from three leaves and black pepper orally along with water
- Ashok Kumar Yadav, East Champaran, Bihar

Malaria
Take the leaf juice orally along with honey
- Prabati Kalita, Kamrup, Assam

Intestinal worms
- Take two spoonfuls of the flower juice with a pinch of salt orally for two days
  - Manoj Kalita, Kamrup, Assam

Diabetes
Take the decoction of the leaves orally for 40 days
- Shama Pravin, Gopalganj, Bihar

Wound
Apply the leaf paste topically
- Ranjeet Kumar, Sheohar, Bihar

Fever
Take the leaf decoction orally
- R.K. Bheirosana Singh, Bishnupur, Manipur

Uses in Classical Codified Literature

Dried fruits are taken orally to get relief from cough \(^{34}\), decoction of dried flower is given with jaggery as an anti-fertility agent in females \(^{35}\); leaf juice is applied externally on ringworm and other skin diseases \(^{35}\). “Lupin” \(^{36}\), is a medicine used for pain and inflammation associated with musculoskeletal and joint disorders. Six patents have been found on its medicinal uses such as in treating Leishmaniasis \(^{37}\) and also for its natural property as a dye \(^{38}\).
Uses of *Phyllanthus emblica* L. (Amla)

**NIF Database**

**Uses from Chhattisgarh**

**Jaundice**
Take the plant powder (5g) along with milk  
- Kiran Batti, Dhamtari, Chhattisgarh

**Wound**
Apply the leaf paste topically  
- Sevaram Bhaskar, Dhamtari, Chhattisgarh

**Uses from other states**

**Gray hair**
Wash the hair regularly with the fruit decoction  
- Sulekha Jabbar, Idukki, Kerala

**Headache**
Make bark paste using the water in which rice has been washed. Apply the paste on the forehead  
- Sulekha Jabbar, Idukki, Kerala

**Diarrhoea**
Take the juice of amla with an equal quantity of lemon juice orally  
- Bina Chaudhry, Kamrup, Assam

**Gynaecological disorder**
Take one spoonful of the powder of amlaki fruit, ginger, black pepper and turmeric (in equal proportions) orally along with honey  
- Nagarmal Bagaria, Nagor, Rajasthan

**Pimples**
Apply the leaf paste topically  
- Ratnaprabha Barik, Kendrapada, Orissa

**Poisonous bite**
Chew 3-4 root pieces along with a leaf of *Areca catechu* L. to get relief from the effect of poisonous bites  
- Anna Gangavarn, Osmanabad, Maharashtra

**Jaundice**
Take one spoonful of the powder of amlaki fruit, ginger, black pepper and turmeric (in equal proportions) orally along with honey  
- Nagarmal Bagaria, Nagor, Rajasthan

**Pimples**
Apply the leaf paste topically  
- Ratnaprabha Barik, Kendrapada, Orissa

**Poisonous bite**
Chew 3-4 root pieces along with a leaf of *Areca catechu* L. to get relief from the effect of poisonous bites  
- Anna Gangavarn, Osmanabad, Maharashtra

**Uses in Classical Codified Literature**

Bark and fruits are used in diarrhoea and dysentery\(^3\); fresh juice of the fruit, mixed with pure cow’s butter and honey, is administered to cure obstinate hiccough\(^3\); juice relieves pain in urine trouble\(^3\); pulp (2-3g) is eaten with warm milk to get rid of headache\(^4\); powder of seeds after mixing with ghee is applied on the head to stop nasal bleeding\(^3\); fruits are taken orally to reduce acidity\(^4\); decoction of the fruit is taken to increase blood count\(^4\).

*Phyllanthus* is one of the main ingredients of well known medicines “Triphala, Chavanprash and Amla hair oil”. Seventy six patents have been found on its medicinal uses such as for diabetes\(^4\), liver disorders and immune deficiencies\(^4\).
PART II : HERBAL PRACTICES & PRODUCTS

Uses of *Sphaeranthus indicus* L. (Gorakhmundi)

**NIF database**

**Use from Chhattisgarh**

**Flatulence**
Prepare tablets from the plant powder mixed with jaggery. Take one tablet twice daily.
- *Pusaram Sahoo, Durg, Chhattisgarh*

**Uses from other states**

**Headache**
Take two spoonfuls of the leaf juice orally.
- *Vilas Shantaram Patil, Jalgaon, Maharashtra*

**Bodyache**
Apply the flower juice on the body.
- *Tarun Suri, Muzaffar nagar, Uttar Pradesh*

**Fever**
Take two spoonfuls of the leaf juice orally.
- *Vilas Shantaram Patil, Jalgaon, Maharashtra*

**Stomachache**
Chew the fresh leaves for immediate relief.
- *Vilas Shantaram Patil, Jalgaon, Maharashtra*

**Uses in Classical & Codified literature**

Extract of the dried aerial parts is taken to get rid of indigestion\(^4^5\); juice of the fresh leaves is mixed with little amount of milk and sugar and consumed to combat cough\(^4^6\); and the plant acts as a diuretic\(^4^6\). Product ‘Diabecon’\(^4^\) minimizes long-term diabetic complications. ‘Geriforte’\(^4\) facilitates respiratory functions, and assists cardiovascular functions. Six patents have been found on its various medicinal applications mainly on inflammatory disorders\(^4^7^\) and cancer\(^4^8\).
Uses of *Terminalia arjuna* (Roxb. ex. DC.) Wt. & Arn. (Arjun)

NIF database

**Uses from Chhattisgarh**

**High blood pressure**
Take one cup of the decoction of bark on an empty stomach for 21 days
- *Pusaram Sahoo, Durg, Chhattisgarh*

**Anaemia**
Take the decoction of bark, leaf and fruit orally
- *Gobardhan Netam, Dhamtari, Chhattisgarh*

**Uses from other states**

**Cardiac disorder**
Take one cup of the tea made from bark powder on an empty stomach
- *Mahesh Bijarania, Nagor, Rajasthan*

**Gynaecological disorder**
Boil the bark of arjun, ashoka (*Saraca asoca* (Roxb.) Wild.) and babul (*Acacia nilotica* (L.) Willd. ex Del.) (100g each) in a litre of water till the solution remains one-third. Take a spoonful of the decoction orally twice a day
- *Tarachand Goswami, Lohardanga, Jharkhand*

**Bodyache**
Chew the tender bark
- *Mohammad Soheb, Gopalganj, Bihar*

**Uses in Classical & Codified Literature**

Decoction of the bark is administered orally to get relief from chest pain, bark powder is taken to combat diabetes; and the paste of bark along with leaves of night jasmine is applied externally to cure injuries. Product ‘Abana’ regulates serum lipids by lowering the cholesterol and thus improves the contractility of the heart. ‘Arjuna’ promotes effective cardiac functioning and regulates blood pressure. Seven patents have been found on its medicinal uses mainly on cancer and hyperlipidemia.
Uses of *Ziziphus mauritiana* Lamk. (Ber)

**NIF Database**

**Use from Chhatisgarh**

**Hair fall**
Apply the paste of leaves of ber, amla (*Phyllanthus emblica* L.) and neem (*Azadirachta indica* A. Juss.) the scalp
- *Tarini Sahu, Dhamtari, Chhattisgarh*

**Uses from other states**

**Indigestion**
Mix the fruit pulp of *Ziziphus* with one year old vinegar and add some black salt to it. Take the formulation for fifteen days on an empty stomach
- *Jivan Nath Bichchunath, Udham Singh Nagar, Uttarakhand*

Take one spoonful of the root paste orally
- *Madhusuda Munda, Keonjhar, Orissa*

**Hair care**
Boil the fresh leaves (100-150g) in one litre of water. Wash the hair with cooled decoction.
- *Baba Anantanand, Hissar, Haryana*

**Acne**
Apply the leaf paste topically
- *Ajay Kumar Jena, Balasore, Orissa*

**Rheumatism**
Apply the leaf and root paste (along with the roots of *Cassia auriculata* L.) on the aching part
- *Jivanbhai Bhanjibhai Jagarana, Bhabnagar, Gujarat*

**Veterinary practice**

**Lactagouge**
Feed the cattle with dry leaf powder mixed in fodder
- *Baba Anantanand, Hissar, Haryana*

**Uses in Classical Codified Literature**

Pounded leaves are applied on boils; powdered leaves are taken to reduce blood sugar; decoction of the plant is administered orally as a diuretic; and powder of dried fruit is given orally with water to cure diarrhoea.

'Dhanwantharam oil' is prepared from *Ziziphus* along with other plants used for rejuvenating body and skin care. More than ten patents have been found on its medicinal applications mainly for treating cancer and tumorous growth.

Source: SRISTI database
Promotion of knowledge based enterprises and lateral markets

National Innovation Foundation in association with regional collaborator Peermade Development Society, Idukki, Kerala initiated a massive campaign through women self help groups to mobilize knowledge, innovations and practices among women. In this exercise more than ten thousand traditional knowledge practices were documented (many were quite common) from the field of cosmetics, nutraceuticals, health care, cooking etc., from just one block of a district in Kerala. This exercise has indicated the immense potential of knowledge at the grassroots, which can be converted into products and viable enterprises for augmenting livelihood options for rural women.

Initially four products having commercial potential were taken up for enterprise development. All knowledge holders of the four products were constituted as a single SHG named Amala and SSI registration was done. Nutrient supplement, baby massage oil and incense stick are the products selected for the initial intervention. The products were tested and standardized. All products were made available in the market under the brand name SAHYA.

The products were formally launched on August 11, 2007 in an auspicious function, attended by large number of women including the innovators. Amala enterprise was supported through the Micro Venture Innovation Fund scheme of NIF.
Herbal Formulations for Healthy Crops

SRISTI SHAstra
Arkhiben Vankar, Ranabhai Kamaliya, Banidan Gadhvi, Gemal Rana, Rajnikant Patel, Ahmadbhai Kadivala, Gujarat.
It flourishes the growth of the plant by increasing flowering as well as fruiting. Besides overall vegetative growth, it is not harmful to nature and human beings. It also controls sucking pests like white fly, heliothis, aphid etc.

SRISTI KRUSHAK
Popatbhai Rupabhai Jambucha, Gujarat
It is an excellent remedy for leaf curl disease. Besides controlling the disease it increases the vigor of the plants by increasing overall growth.

SRISTI SURAKSHA
Community Knowledge, Gujarat
It is a very efficient treatment for termite and acts as a vitaliser to the affected crops. To control termites the herbal formulation is mixed with sand and spread in the field. Some times it is released in the field along with the flow of irrigation water. In some cases, it is also drenched in the affected part of the plant and sprayed on the vegetation to repel termites.

SRISTI PRAYAS
Community Knowledge, Gujarat
It is a highly effective formulation to act as a herbal growth promoter, which stops shedding of flowers as well as increases the overall growth of the plant. This formulation strengthens the plants internally and enables them to withstand extreme weather conditions. Constant use of this formulation increases the yield and reduces the toxic content in our daily diet.

SRISTI SHAKTI
Community Knowledge, Gujarat
A herbal growth promoter, which helps in production of excellent quality organic food grain. Constant use of this formulation not only increases the yield but also reduces the toxic contamination in our food and environment.
Herbal Formulations for Livestock and Poultry

**Coccicure**  
*Sudakarbhai K. Gauli & Jeevalbhai M. Gauli, Dang, Gujarat*  
It is a unique herbal medication for prevention and curing of Coccidiosis (*Eimeria* sp infections) in Poultry. The primary function of the medication is to reduce the oocytes maturation and affects the life cycle of various *Eimeria* species.

**Poultmax**  
*Community knowledge, Valsad, Dang, Gujarat*  
It is a unique herbal medication for promoting poultry immunity. It cures symptoms like greenish diarrhoea, conjunctivitis, nasal sputum, drop in egg production and respiratory distress in poultry. About 30g/100 birds for 0-4 weeks & 60g/100 birds for 4-8 weeks may be administered for seven days in stress or for three days before and three days after expected stress.

**Mastiherb**  
*Ukhardiyabhai S. Raot, Dang, Gujarat*  
Mastiherb is a unique intramammary herbal medication for curing mastitis in animals. Clinical trials indicated efficacy of the medication over subclinical mastitis; clinical mastitis and chronic mastitis. It was also validated in case of mastitis due to *Staphylococcus aureus*. The dose rate was found to be single intra mammary infusion for minimum three days after adequate standardization.

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These formulations are based on traditional knowledge of farmers and developed by Sadbhav-SRISTI Sanshodhan Laboratory (www.sristi.org). These products are licensed to Matrix Biosciences Pvt. Ltd, Hyderabad, Andhra Pradesh. The benefits are shared with the knowledge providers, communities, nature, those who add value and other stakeholders in the knowledge and value chain.
Knowledge Network for Healing Life in Rajnandgaon District

An illustrative example of local biodiversity and knowledge network for human health
(All the species are found in Rajnandgaon district)