This section contains details of herbal preparations used traditionally for various ailments and products based on such traditional knowledge.
Uses of *Alstonia scholaris* (L.) Br. (Sotiona)

**NIF Database**

**NIF Database**

**Uses from Assam**

**Whooping cough**

Extract sap (one teaspoon) of the plant and mix it with cow’s milk (100ml). Take it once a day for three days.
- Mahendra Nath Dutta, Jorhat, Assam

**Malaria**

Take bark of the plant and *Caesalpinia bonduc* (L.) Roxb. (*Lataguti*) in equal proportions. Boil it till the contents reduce to 1/3rd of the initial amount. Take 50ml of the decoction once a day for ten days.
- Shadeswar Gogoi, Sibsagar, Assam

**Jaundice**

Mix sap of the plant with cow’s milk. Take it early in the morning on an empty stomach for three days
- Ramakanta Borah, Sibsagar, Assam

**Gastric complaint**

Grind few leaves with black pepper. Take the paste orally before food
- Indra Kanta Ojha, Sibsagar, Assam

**Uses from other states**

**Headache**

Extract juice from the bark (20g) and take it orally
- Prishila Tuddu, Hazaribag, Jharkhand

**Asthma**

Take decoction of the bark orally
- Robert L. Hamte, Aizawl, Mizoram

**Stomachache**

Extract juice from the bark (20g) and take it orally
- Prishila Tuddu, Hazaribag, Jharkhand

**Wound**

Apply the paste of the bark and leaves on infectious wound
- Robert L. Hamte, Aizawl, Mizoram

**Fever**

Grind bark (50g) into a powder and take it with water thrice a day
- Kutuva Birhorni, Koderma, Jharkhand

**Uses in Classical Codified Literature**

The bark is used to cure skin diseases and rheumatism; the root juice is taken with milk to cure leprosy; fresh bark is put in water to draw out the latex in it, which is taken orally in case of tuberculosis; dried powder is administered orally to cure diarrhoea; and bark extract is useful in case of intestinal worms. *Ayush-64 cap./tab.*, prepared from the plant, is effective as an antimalarial compound both for treatment and prophylaxis. Fifteen patents have been found on its medicinal uses as an antipyretic.
Uses of *Camellia sinensis* (L.) Kuntze (Chai, Cha pat)

**NIF Database**

**Uses from Assam**

**Ringworm**
Crush the leaves of *Camellia sinensis*, *Randia* sp., *Lawsonia inermis* L., and *Leucas* sp. along with a garlic bulb and extract the juice. Apply the juice on the affected body part.
- Dimbeswar Gogoi, Sibsagar, Assam

**Uses from other states**

**Herbal hair oil**
Put 50g each of fine tea powder, black sesame seeds and black cumin in a vessel containing 600g coconut oil, 100g castor oil and 100g olive oil and mix it well. Apply the mixture on the hair third day onwards.
- Valsamma Thomas, Idukki, Kerala

**Bleeding dysentery**
Take tea powder with some sugar orally.
- Umashankar Baitha, East Champaran, Bihar

**Fever**
Prepare the decoction of tea, *ajwain*, black pepper, and ginger. Take it once a day.
- Madhudevi, Sikar, Rajasthan

**Uses in Classical Codified Literature**

Root extract has antineoplastic and anti-tumor properties; hot water extracts show anti ulcer, anti-diarrhoeal properties; and green and black tea has antioxidant property.

Green tea has antioxidant and immunomodulating properties, which strengthen body’s immunity and delay the natural ageing process. One hundred and twenty three patents have been found on its medicinal applications like for treating diabetes.
Uses of *Carica papaya* L. (Papita)

**NIF Database**

**Uses from Assam**

**Headache**
Grind seeds with some garlic cloves to make a fine paste and apply on the forehead
- *Saiba Barman, Borpeta, Assam*

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

**Uses from other states**

**Toothache**
Dip the cotton in the latex of the stem and keep it on the aching tooth
- *Mangeram Jani, Hissar, Haryana*

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

**Intestinal worms**
Mix fresh latex with honey and take it orally
- *Prabhat Kumar Pandey, East Champaran, Bihar*

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

**Jaundice**
Make a curry of young fruit and eat
- *Sharda Devi Gangwal, Jaipur, Rajasthan*

**Veterinary practice**
**Lactogouge**
Feed fruits daily to enhance milk production
- *Manoj Kumar, Madhubani, Bihar*

**Uses in Classical Codified Literature**
Decoction of the flower is used as cardiotonic; bark powder is applied externally on wounds; decoction of the bark is given orally to get rid of intestinal worms; and beverage of the fruit is taken orally to cure diarrhoea. Natural moisturisers and creams are prepared from *Carica* in combination with other plants. Thirty patents were found on its medicinal uses such as an antiallergic and for prevention of cancer.

Source: [http://utenti.lycos.it/piantetropicali/Carica_papaya.jpg](http://utenti.lycos.it/piantetropicali/Carica_papaya.jpg)
Uses of *Cassia fistula* L. (Sonaru)

**NIF Database**

**Uses from Assam**

**Mouth sore**
Extract juice from the plant, smear it on a banana leaf and burn the leaf. Apply the ash on the affected part.
- *Purna Borah, Golaghat, Assam*

**Dysentery**
Take bark (50g each) of *Cassia fistula* L., *Spondias mangifera* Wild., *Mangifera indica* L., *Punica granatum* L., *Psidium guajava* L., grind it with water to make a smooth paste. Take two teaspoons daily on an empty stomach.
- *Niru Patangia, Sonitpur, Assam*

**Uses from other states**

**Cough**
Chew fruit bark in the morning.
- *Santoshben Gamar, Banaskantha, Gujarat*

**Stomachache**
Take decoction of the fruit with some jaggery orally.
- *Bhagwati Lal Kumawat, Chittorgarh, Rajasthan*

**Ringworm**
Apply paste of the scrubbed tuber on the infected part of the body.
- *Kumar Chandel, Hamirpur, Himachal Pradesh*

**Uses in Classical Codified Literature**

Powder of the dried bark is applied in the case of leucoderma; fruit juice is useful in jaundice; fruits are used as diuretic; and root powder is applied in skin diseases. *Plex* (Vein care) helps support metabolic processes involved in maintaining the vascular system’s integrity for optimum health and appearance; *Purim* (Hemo care) is used for blood purification. Six patents have been found on the medicinal applications of *Cassia fistula* as an antiviral.

Uses of Centella asiatica (L.) Urban (Manimuni)

NIF Database

Uses from Assam

Insomnia
Include whole plant’s paste in daily diet
- Khiroram Barman, Borpeta, Assam

Toothache
Make a paste of Manimuni leaves, garlic bulb and banana roots. Apply topically and leave it for one hour.
- Anil Gogoi, Sibsagar, Assam

Sinusitis
Grind leaves (10g) with one black peppercorn and extract the juice. Put three drops of the juice in nostrils for three days
- Batchu Murmur, Kokrajhar, Assam

Dysentery
Grind ten leaves of Manimuni and guava to make a paste. Take the paste twice a day for ten days. In case of chronic dysentery, continue the treatment for 90 days
- Guna Ram Khanikar, Golaghat, Assam

Make a paste of leaves along with black pepper and take it orally
- Dipali Borah, Sibsagar, Assam

Uses from other states

Memory enhancement
Take leaf juice orally
- Savitri Devi, Kangra, Himachal Pradesh

Stomachache
Eat fresh leaves to alleviate stomachache
- Krishna Chand, Kangra, Himachal Pradesh

Diarrhoea
Take two spoonfuls of whole plant juice, with a pinch of salt, orally twice a day for one week
- Sapam Deben, Nombal, Manipur

Jaundice
Take juice of the whole plant orally
- Vifiya Oraon, Lohardaga, Jharkhand

Skin diseases
Apply the paste of the leaves topically
- Savitri Devi, Kangra, Himachal Pradesh

Herbal tea for immunity
Add some leaves while preparing tea. It helps enhance immunity
- Jasmit Singh, Hamirpur, Himachal Pradesh

Uses in Classical Codified Literature

Fresh juice from aerial part is used as brain tonic; powder of aerial parts helps to control high blood pressure; whole plant is diuretic; and plant paste is applied as a poultice in case of bone fracture. ‘Herbal Tea’ is mainly indicated as a health drink. ‘Mentat’ improves mental functions, mental quotient, memory span, and concentration ability and stress threshold. More than three hundred patents have been found on its medicinal applications as an anti-depressant.

Source: http://www.fitoterapia.net/vademecumplantas/FOTOS/Centella/asiatica.jpg

ASSAM INNOVATES | 58
Uses of *Jatropha curcas* L. (Bongali era)

**NIF Database**

**Uses from Assam**

**Jaundice**
Extract the juice of leaf and bark and add a little jaggery. Take the preparation for one or two days.
- *Dimbeswar Gogoi, Sibsagar, Assam*

**Cholera**
Take the juice (50ml) of stem and bark for five days.
- *Purna Kanta Shyam, Sibsagar, Assam*

**Agnail**
Apply latex topically
- *Atilik Baruah, Sibsagar, Assam*

**Uses from other states**

**Skin disease**
Apply paste of the leaves topically
- *Madhav Shankar Rao Patil, Jalgaon, Maharashtra*

**Eczema**
Heat jatropha oil (60g) and bee wax (30g) at 60°C and dissolve borax (1g) in water (10 ml). Mix both together and stir slowly on simmer flame. Apply the ointment on the affected area.
- *Raghubir Agarwal, Hissar, Haryana*

**Thorn pain**
Apply the latex of the plant on the affected part
- *Madhav Shankar Rao Patil, Jalgaon, Maharashtra*

**Piles**
Take the leaf juice orally
- *Chingakham Binashaki Devi, Imphal West, Manipur*

**Tumor**
Keep warm leaves smeared with oil on the tumor
- *Madhav Shankar Rao Patil, Jalgaon, Maharashtra*

**Veterinary practice**

**Foot & mouth disease**
Grind seeds with the latex of *Calotropis gigantea* R. Br. and little amount of edible oil. Apply the paste topically
- *Gandubhai, Dang, Gujarat*

**Uses in Classical Codified Literature**

Bark powder is taken orally with water to get cured from pyorrhea; leaves are useful in ulcer; young branches are warmed in fire and tied on the aching joint; and latex is applied on the burnt part. *Jatropha tincture* is used as a disinfectant, antiparasitic and anticoagulant. Thirteen patents have been found on the medicinal uses like for cuts, burns and wounds.
Uses of *Kalanchoe pinnata* (Lam.) Pers. (Dupar tenga)

NIF Database

**Uses from Assam**

**Kidney stone**
Grind the leaves of the plant with a piece of turmeric and extract the juice. Add some jaggery and take the preparation for ten days.
- Dimbeswar Gogoi, Sibsagar, Assam

Take the juice of leaves (10-12) orally once a day for 25-30 days.
- Guna Ram Khanikar, Golaghat, Assam

**Uses from other states**

**Eye pain**
Put two drops of leaf juice in the eyes
- Susanta Kumar Manjhi, Birbhum, West Bengal

**Stomach disorder**
Take two spoonful of leaf juice orally
- Susanta Kumar Manjhi, Birbhum, West Bengal

**Diarrhoea**
Take the leaf juice orally along with some sugar
- Bikesh Kumar, Sitamarhi, Bihar

**Cuts & wounds**
Apply leaf paste topically
- Arun Ghosh, Bankura, West Bengal

**Pain**
Apply leaf paste topically
- Priyanka Pramanik, Purulia, West Bengal

**Jaundice**
Take the leaf juice orally along with a few black pepper
- Arun Kumar Pandey, Fatehpur, Uttar Pradesh

**Fever**
Take the leaf juice orally along with a few black pepper
- Arun Kumar Pandey, Fatehpur, Uttar Pradesh

**Uses in Classical Codified Literature**

Plant paste is applied on forehead to alleviate headache; leaf paste is applied externally to cure cuts and wounds; and fresh sap of plant is used for eye diseases. Product ‘Regenerating Day Cream’, a multi-herbal medicine, enhances skin’s tone and elasticity, helping to smooth wrinkles and fine lines. Five patents have been found on medicinal applications of *Kalanchoe* as an antiobesity medication.
Uses of *Nyctanthes arbor-tristis* L. (Sewali)

**NIF Database**

**Uses from Assam**

**Cough**
Take the warm juice of tender leaves with a little salt at night for three to four days
- Mahendra Nath Dutta, Jorhat, Assam

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

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

**Thread worm**
Take leaf juice (two teaspoons) orally with a pinch of salt
- Manoj Kalita, Kamrup, Assam

**Uses from other states**

**Hair fall**
Apply the seed paste on the scalp
- Rani B. Bhagat, Pune, Maharashtra

**Cough/cold**
Grind about three leaves with a black pepper to make a paste. Take the paste with water orally
- Ashok Kumar Yadav, East Champaran, Bihar

**Fever**
Take decoction of the leaves orally
- R.K. Bheirosana Singh, Bishnupur, Manipur

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

**Pain**
Apply leaf paste topically to alleviate pain
- Ramsharan Dhruv, Dhamtari, Chhattisgarh

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

**Uses in Classical Codified Literature**

Dried fruits are taken orally to get relief from cough; decoction of dried flower is given with jaggery as an anti-fertility agent in females; leaf juice is applied topically on ringworm and other skin diseases. ‘Lupin’ is a medicine used for pain and inflammation associated with musculoskeletal and joint disorders. Six patents have been found on its medicinal uses for treating Leishmaniasis and also for its natural property as a dye.

Source: http://prathom.swu.ac.th/panmai/pic/7-10110-002-110.JPG
Uses of *Phyllanthus emblica* L. (Amlakhi)

**NIF Database**

**Uses from Assam**

**Stomach ulcer**
Mix fruit powder of Aamlaki (*Phyllanthus emblica* L.) and Haritaki (*Terminalia chebula* (Gaertn.) Retz.) equally. Take two teaspoons of the mixture, add some water and two teaspoons of honey to make a paste. Take the preparation twice a day for thirty days
- Guna Ram Khanikar, Golaghat, Assam

**Leucorrhoea**
Mix powder of *Phyllanthus emblica*, tapioca and black cumin equally. Take one teaspoon with a cup of water twice a day for thirty days
- Guna Ram Khanikar, Golaghat, Assam

**Diarrhoea**
Take mixture of juice of amla and lemon (in equal proportion) orally
- Bina Chaudhry, Kamrup, Assam

**Uses from other states**

**Eye irritation**
Extract juice from a ripe fruit and add an equal amount of honey. Put one drop of the mixture in the eyes before going to bed at night
- Indira Chandel, Bilaspur, Himachal Pradesh

**Cough/cold**
Mix the fruit powder and *Glycyrrhiza glabra* L. (10g). Take five grams of the mixture orally with water
- Ved Prakash, Faridabad, Haryana

**Jaundice**
Grind equal amounts of amla fruit, ginger, black pepper and turmeric into a fine powder. Take one teaspoonful of this powder with honey
- Nagarmal Bagaria, Nagor, Rajasthan

**Wounds**
Apply leaf paste topically on wounds
- Sevaram Bhaskar, Dhamtari, Chhattisgarh

**Uses in Classical Codified Literature**

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

*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 for diabetes, liver disorders and immune deficiencies etc.
Uses of *Tinospora cordifolia* (Willd.) Miers ex Hk. f. & Th. (Saguni lota)

**NIF Database**

**Uses from Assam**

**Jaundice**
Take stem juice orally till the ailment cures  
- D. K. Phukan, Guwahati, Assam

**Diabetes**
Take a leaf on an empty stomach in the morning  
- D.K Phukan, Guwahati, Assam

**Veterinary practice**

**Anestrous**
Grind the plant, along with the bark of *Cassia fistula* L. and leaves of *Artocarpus heterophyllus* Lam., and take it orally  
- Honnegowda, Bengaluru rural, Karnataka

**Uses from other states**

**Asthma**
Take two spoonful of the leaf juice orally with honey for 40-42 days  
- Ramabandhu Mahajan, Jalgaon, Maharashtra

**Diabetes**
Take leaf powder (¼ spoon) regularly  
- Patel Singh, Hissar, Haryana

**Rheumatism**
Mix the plant (25g), dry ginger (5g), sesame oil (5g), soak in water overnight. Take the filtered solution the next morning  
- Jagjit Bahadur, Sitapur, Uttar Pradesh

**Piles**
Boil, dry and grind the whole plants (50g) into a fine paste. Make tablets from it. Take one tablet thrice a day for 3-5 days  
- Pukhram Angouba Singh, Bishnupur, Manipur

**Uses in Classical Codified Literature**

Powdered roots are taken to cure mouth ulcer⁴⁹; powdered plant is administered orally with honey to get relief from stomach disorders⁵⁰; the stem is bitter and is used as anthelmintic⁵²; and decoction of the plant is given orally to cure diarrhoea⁵¹.

*Tinospora* is a well known medicinal plant and used to cure a number of diseases in combination with other plants with brand names *Geriforte, Diabecon*¹² etc. More than hundred patents have been found on its medicinal applications like an antiallergic⁵² and for cancer⁵³.
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.
PART II: HERBAL PRACTICES & PRODUCTS

Herbal Formulations for Livestocks 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.

Poultnax
* 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 intramammary infusion for minimum three days after adequate standardization.

*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.