

PART II

HERBAL PRACTICES & PRODUCTS

This section contains details of herbal preparations used traditionally for various ailments and products based on such traditional knowledge



Uses of *Abelmoschus esculentus* (L.) Moench. (Bhindi)

NIF Database

Use from Arunachal Pradesh

Urinary tract infection

Grind the roots into a fine paste. Take the paste orally on an empty stomach

- *A. Tayeng and Tonya Sirum, East Siang, Arunachal Pradesh*

Uses from other states

Hair care

Grind fresh leaves into a fine paste and apply it on the scalp, leave it for an hour for drying and then wash with cold water

- *Dhaneswar Pradhan, Angul, Orissa*

Wound

Grind the seeds into a fine paste and apply it on wounds.

- *Naresh Giri, Hamirpur, Himachal Pradesh*

Eczema

Crush 500 g of fruits to obtain gel. Apply the gel topically on the affected part

- *Vejabhai Lakhmanbhai, Junagadh, Gujarat*

Cough

Boil small pieces of fruits and inhale the steam

- *Dhrusht Dhaman Kumar, East Champaran, Bihar*

Stomachache

Take root paste with water

- *Sehara Bano, Gopalganj, Bihar*

Uses in Classical Codified Literature

Decoction of immature fruits is used as diuretic¹; seeds are considered as antispasmodic¹; poultice of leaves are used externally as emollient²; seeds are useful in treatment of gonorrhoea, urinary discharges, strangury, diarrhoea, blood disorders³ etc; juice of the roots is used externally in Nepal to treat cuts, wounds and boils⁴. Twelve patents have been found on its applications in preparing cosmetics⁵ and other medicinal purposes.



Source: http://www.worldcrops.org/images/content/Cuba_500_400.JPG

Uses of *Alstonia scholaris* (L.) Br. (Singger, Thomdom)

NIF Database

Use from Arunachal Pradesh

Cuts and wounds

Grind the leaves into a paste and apply topically over the affected area

- Jongam Ngemu, Papum Pare, Arunachal Pradesh

Uses from other states

Headache

Extract juice from the bark (20g) and take orally

- Prishila Tuddu, Hazaribag, Jharkhand

Wound

Apply the paste of bark and leaves topically on infectious wound

- Robert L. Hamte, Aizawl, Mizoram

Whooping cough

Extract one teaspoonful sap of the plant and mix it with 100ml cow's milk. Take it once a day for three days.

- Mahendra Nath Dutta, Jorhat, Assam

Asthma

Take the decoction of bark orally

- Robert L. Hamte, Aizawl, Mizoram

Gastric complaint

Grind few leaves with black pepper and take orally before food

- Indra Kanta Ojha, Sibsagar, Assam

Stomachache

Take the juice extracted from bark (20g) orally

- Prishila Tuddu, Hazaribag, Jharkhand

Fever

Take powdered bark (50g) with water thrice a day

- Kutuva Birhorni, Koderma, Jharkhand

Uses in Classical Codified Literature

The bark is used against skin diseases and rheumatism⁶; root juice is taken with milk to cure leprosy⁶; fresh bark is put in water to draw out the latex in it, which is taken orally in case of tuberculosis⁷; dried powder is administered orally to cure diarrhoea⁸; bark extract is useful on intestinal worms⁹. 'Ayush-64 cap./tab.'¹⁰, prepared from this plant is effective both as prophylaxis and treatment of malaria. Fifteen patents were found on its medicinal applications as an antipyretic¹¹.



Source: http://www.mythofleurs.com/images/Fleurs_du_Vietnam/Alstonia_scholaris.jpg

Uses of *Carica papaya* L. (Omir)

NIF Database

Uses from Arunachal Pradesh

Cuts and wounds

Grind the leaves into a paste and apply topically over the affected area

- Jongam Ngemu, Papum Pare, Arunachal Pradesh

Jaundice

Take the decoction of the roots thrice a day along with some other herbs

- Yanueg Jamoh Lego, East Siang, Arunachal Pradesh

Uses from other states

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

Ringworm

Apply the milky latex on the affected area

- Mukesh Kumar, East Champaran, Bihar

Jaundice

Eat the curry of tender fruit

- Sharda Devi Gangwal, Jaipur, Rajasthan

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

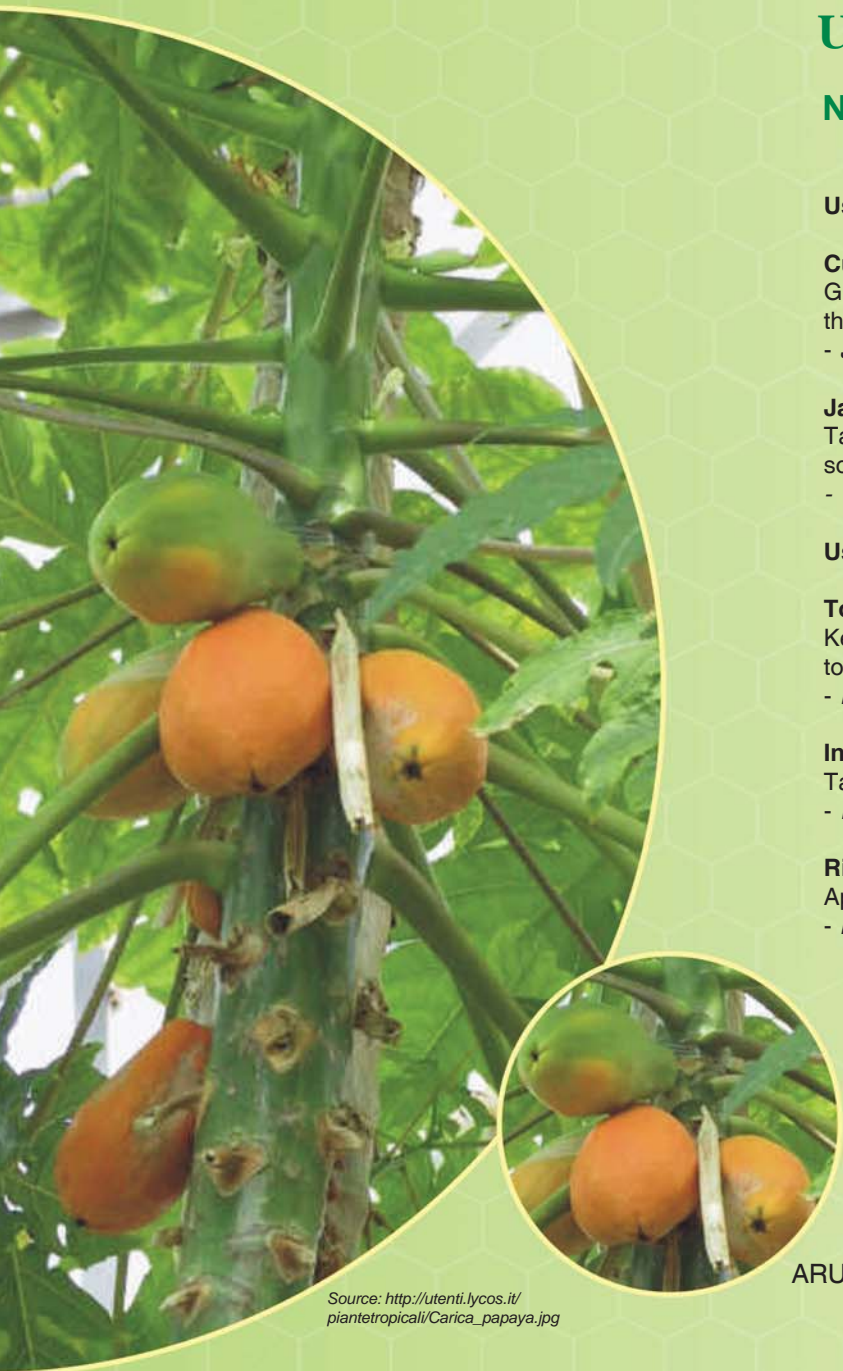
Lactagogue

Feed fruits daily to enhance milk production

- Manoj Kumar, Madhubani, Bihar

Uses in Classical Codified Literature

Decoction of the flower is used as cardi tonic¹²; bark powder is applied externally on wounds¹³; decoction of the bark is given orally to get rid of intestinal worms¹⁴; beverage of the fruit is taken orally to cure diarrhoea¹⁵. Natural moisturizers and creams¹⁶ are prepared from *Carica* in combination with other plants. Thirty patents were found on its medicinal uses as an antiallergic¹⁷ and for prevention of cancer¹⁸.



Source: http://utenti.lycos.it/piantetropicali/Carica_papaya.jpg

Uses of *Centella asiatica* (L.) Urban (Kiling kiro)

NIF Database

Use from Arunachal Pradesh

Malaria

Take the decoction of the plant along with some other herbs thrice a day

- Smit Yanueg Jamoh Lego, East Siang, Arunachal Pradesh

Uses from other states

Toothache

Make a paste of *Kiling kiro* leaves, garlic cloves and banana roots. Apply topically and leave for one hour.

- Anil Gogoi, Sibasagar, Assam

Sinusitis

Grind leaves (10g) along with one black pepper and extract the juice. Put three drops into nostrils. Continue the treatment for three days

- Batchu Murmur, Kokrajhar, Assam

Dysentery

Grind leaves (10) of *Kiling kiro* and guava together to make a paste. Take this 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, Sibasagar, Assam

Memory enhancer

Take leaf juice orally

- Savitri Devi, Kangra, Himachal Pradesh

Skin diseases

Apply leaf paste topically over the affected part

- Savitri Devi, Kangra, Himachal Pradesh

Diarrhoea

Take two spoonfuls of whole plant juice with a pinch of salt orally twice a day for a week

- Sapam Deben, Bishnupur, Manipur

Jaundice

Take whole plant's juice orally

- Vifiya Oraon, Lohardaga, Jharkhand

Herbal tea for immunity

Add some leaves while preparing tea. It helps to enhance immunity

- Jasmit Singh, Hamirpur, Himachal Pradesh

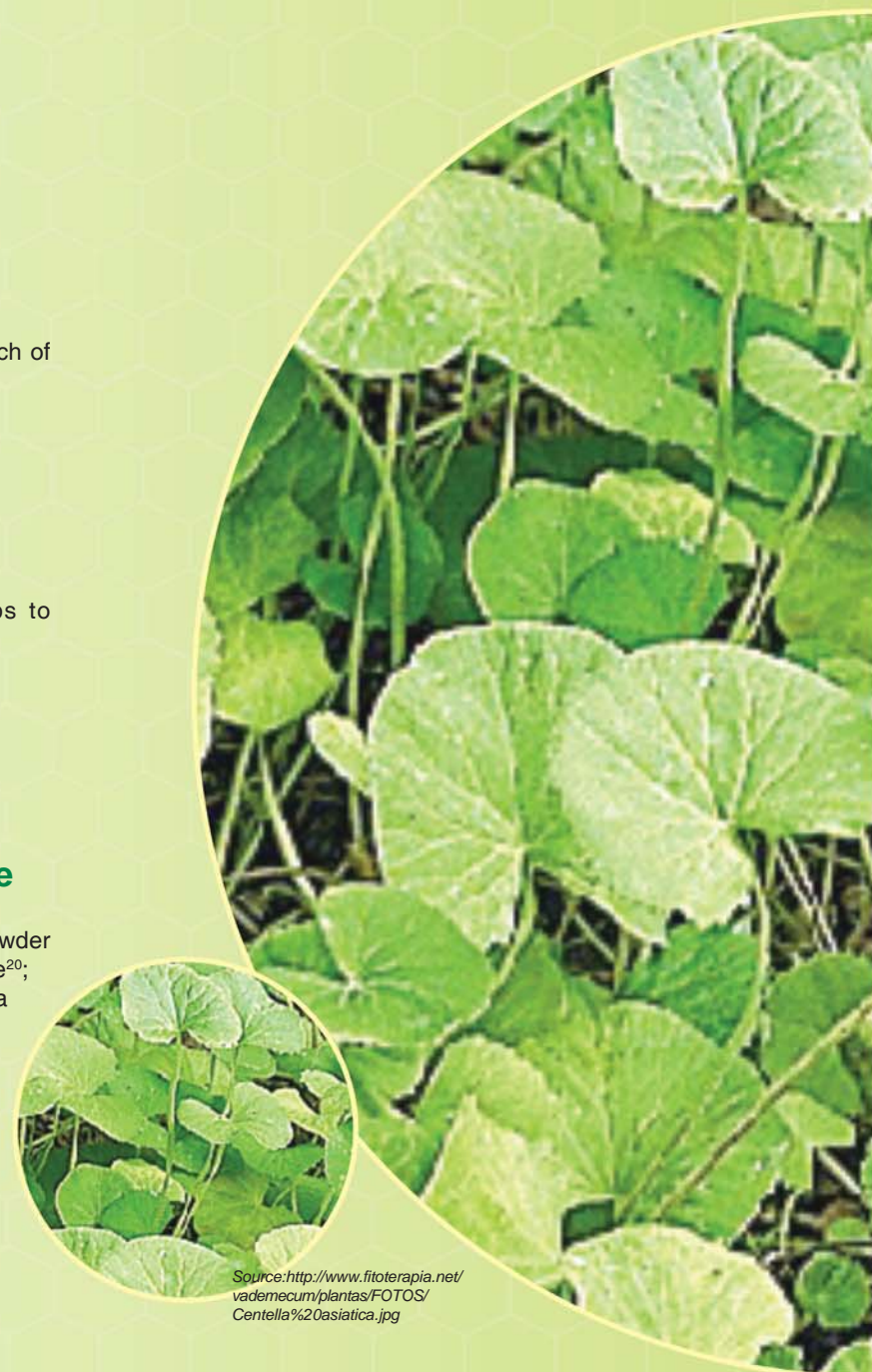
Insomnia

Include whole plant's paste in daily diet

- Khiroram Barman, Borpeta, Assam

Uses in Classical Codified Literature

Fresh juice of aerial part is used as brain tonic¹⁹; powder of aerial parts helps to control high blood pressure²⁰; whole plant is diuretic²; plant paste is applied as a poultice in case of bone fracture². 'Herbal Tea'²¹ is mainly indicated as a health drink. 'Mentat'²² improves mental functions, mental quotient, memory span, and concentration ability and stress threshold. More than three hundred patents were found on its medicinal applications as an anti-depressant²³.



Source: <http://www.fitoterapia.net/vademecum/plantas/FOTOS/Centella%20asiatica.jpg>

Uses of *Ficus benghalensis* L. (Shiroto)

NIF Database

Use from Arunachal Pradesh

Wound

Apply bark power topically on wounds

- Ongkom Payang, Upper Siang, Arunachal Pradesh

Uses from other states

Whooping cough

Take a spoonful of bark paste orally

- Priyanka Kumari, West Champaran, Bihar

Fever

Take decoction of bark orally along with a little salt

- Sohanlal Chhipa, Jhalor, Rajasthan

Stomachache

Tie warmed leaves on the stomach to get relief from pain

- Gajanand Maharaj, Jaipur, Rajasthan

Backache

Massage the latex mixed with mustard oil on the aching part

- Chen Singh Charan, Nagor, Rajasthan

Wound

Mix leaf ash and coconut oil to make a paste. Apply the paste topically

- Priyanka Pramanik, Purulia, West Bengal

Sprain

Smear lukewarm paste of the bark on the site of the sprain

- Arun Ghosh, Bankura, West Bengal

Heel crack

Apply the latex topically

- Priyanka Pramanik, Purulia, West Bengal

Uses in Classical Codified Literature

Aerial roots' paste is mixed with salt after filtering and taken once a day²⁴ for diabetics; decoction of plant is applied externally on wounds and ulcers²⁵; latex is given orally to cure bronchitis²⁶. 'Anti-Dandruff shampoo'²², a product prepared from this plant in combination with other plants, is used to keep hair healthy and dandruff free. Product 'KLD Lotion'²⁷, a multiherbal ayurvedic preparation using *Ficus*, is effective in many skin ailments such as acne marks, pimples, burns, sunburns, nappy rash etc. 'Litina'²⁸, a herbal toothpaste made from this plant along with other plants, is good for the gums and the teeth. Four patents were found on medicinal applications of *Ficus* for antitumor²⁹ medication, wound healing³⁰ etc.

Uses of *Kalanchoe pinnata* (Lam.) Pers. (Nebi nelam)

NIF Database

Use from Arunachal Pradesh

Injury

Put warmed leaves on the affected body part
- *Onom T. Doming, East Siang, Arunachal Pradesh*

Uses from other states

Eye pain

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

Stomach disorder

Take two spoonfuls of the leaf juice orally
- *Susanta Kumar Manjhi, Birbhum, West Bengal*

Diarrhoea

Take 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 juice of leaves and black pepper orally
- *Arunkumar Pandey, Fatehpur, Uttar Pradesh*

Fever

Take the juice of leaves and black pepper orally
- *Arunkumar Pandey, Fatehpur, Uttar Pradesh*

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, Sivasagar, Assam*

Take leaf juice orally once a day for 25-30 days.

- *Guna Ram Khanikar, Golaghat, Assam*

Uses in Classical Codified Literature

Plant paste is applied on forehead to alleviate headache³¹; leaf paste is applied externally to cure cuts and wounds³²; fresh sap of plant is used for eye diseases³³. Product 'Regenerating Day Cream'³⁴ a multiherbal medicine enhances skin's tone and elasticity, helping to smooth wrinkles and fine lines. Five patents were found on the medicinal applications of *Kalanchoe* mainly as an antiobesity³⁵ medication.



Source: NIF database

Uses of *Leucas aspera* Spr. (Eki pettu)

NIF Database

Use from Arunachal Pradesh

Sinus

Put few drops of leaf juice in the nose.

- *Onom T. Doming, East Siang, Arunachal Pradesh*

Uses from other states

Migraine

Put two drops of the juice extracted from freshly plucked leaves in the nose

- *Ramji Chink Badaik, Gumla, Jharkhand*

Eczema

Mix plant ash and coconut oil to make a paste. Apply the paste on the infected body part

- *Gokul Singh, East Champaran, Bihar*

Jaundice

Extract the juice of leaves and mix in it a little quantity of goat's urine. Take this mixture twice a day for 4 days

- *Shalini Shrivastava, Balia, Uttar Pradesh*

Stomachache

Take curry made from the plant

- *Usha Rani, Darbhanga, Bihar*

Uses in Classical Codified Literature

Dried plant powder is applied in case of scabies³⁶; the plant is used as an anthelmintic³⁷; a handful flower (5g) roasted in ghee is given once a day to cure cough³⁸. 'Herbal Steam Bath'³⁹ is used to clean dirt and bad odour in the body, stop burning sensation in eyes, prevent watery eyes, headache, nausea, migraine etc. 'Herbex Cough Syrup'²¹ is very effective for all kinds of cough and cold, asthma, bronchitis, wheezing cold and upper respiratory tract infections.



Source: AWCCDS, Bihar

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

NIF Database

Use from Arunachal Pradesh

Malaria

Take the leaf paste on an empty stomach
- Tonya Sirum, East Siang, Arunachal Pradesh

Uses from other states

Hair fall

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

Cough

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

Fever

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

Take the juice of leaves (6-7) and a ginger thrice a day
- Rani B. Bhagat, Pune, Maharashtra

Wound

Apply leaf paste topically for relief
- Ranjeet Kumar, Sheohar, Bihar

Pain

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

Intestinal worms

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

Diabetes

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

Uses in Classical Codified Literature

Dried fruits are taken orally to get relief from cough⁴⁰; decoction of dried flower is given with jaggery as an anti-fertility agent in females⁴¹; leaf juice is applied externally on ringworm and other skin diseases⁴¹. 'Lupin'⁴² is a medicine used for pain and inflammation associated with musculoskeletal and joint disorders. Six patents were found on its medicinal uses for treating Leishmaniasis⁴³ and also for its natural property as a dye⁴⁴.



Source: <http://prathom.swu.ac.th/panmaipic/7-10110-002-110.JPG>

Uses of *Phyllanthus emblica* L. (Amla)

NIF Database

Use from Arunachal Pradesh

Acidity

Grind the fruit with other herbs and take to treat acidity
- Yanueg Jamoh Lego, East Siang, Arunachal Pradesh

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 gram 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 tea-spoonful of this powder with honey
- Nagarmal Bagaria, Nagor, Rajasthan

Wounds

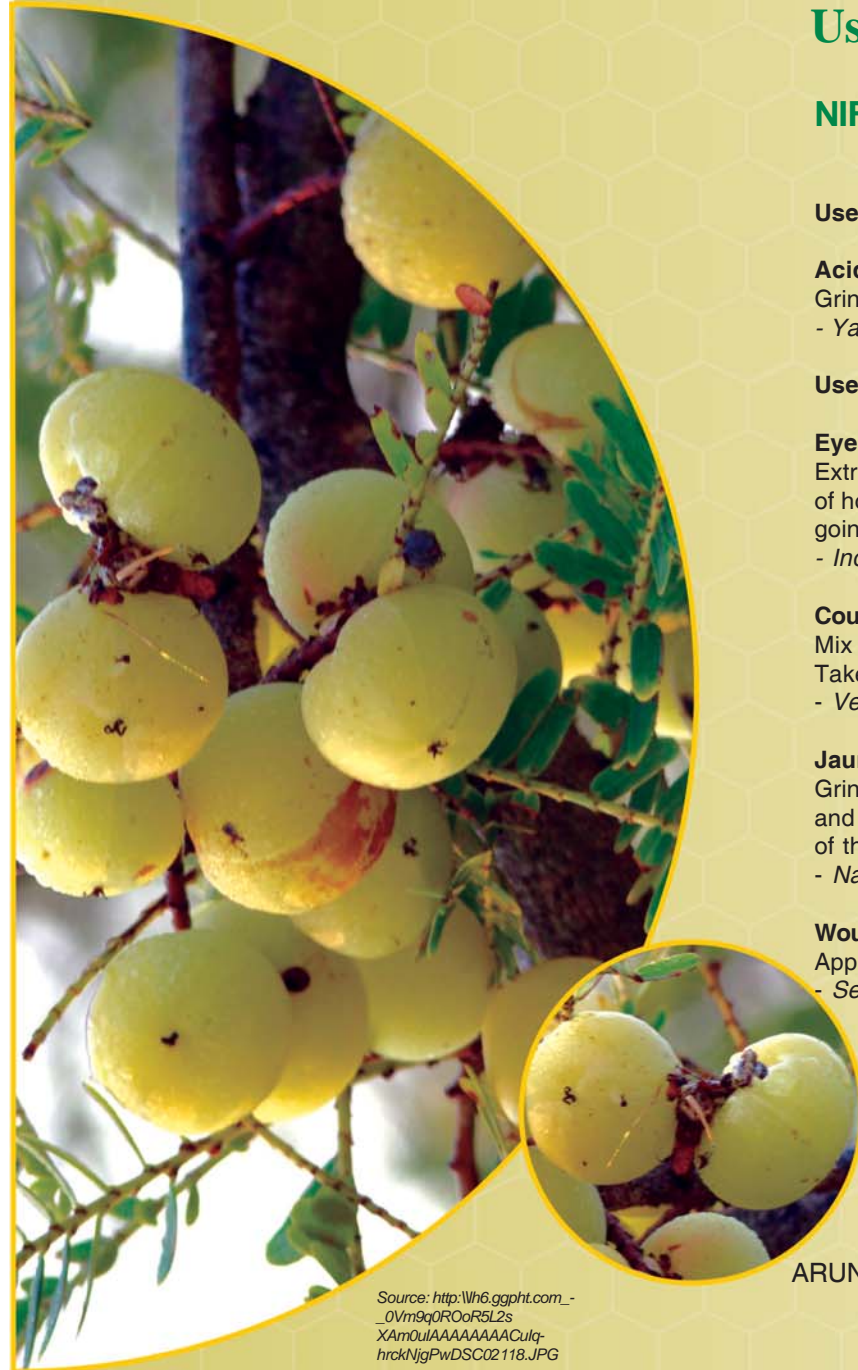
Apply leaf paste topically on wounds
- Sevaram Bhaskar, Dhamtari, Chhattisgarh

Diarrhoea

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

Uses in Classical Codified Literature

Bark and fruits are used in diarrhoea and dysentery⁴⁵; fresh juice of the fruit, mixed with pure cow's butter and honey, is administered to cure obstinate hiccough⁴⁵; juice relieves pain in urine trouble⁴⁵; pulp (2-3g) is eaten with warm milk to get rid of headache⁴⁶; powder of seeds after mixing with ghee is applied on the head to stop nasal bleeding⁴⁷; fruits are taken orally to reduce acidity⁴⁸; decoction of the fruit is taken to increase blood count⁴⁹. *Phyllanthus* is one of the main ingredients of well known medicines 'Triphala, Chavanprash and Amla hair oil'²². Seventy-six patents were found on its medicinal uses for diabetes⁵⁰, liver disorders and immune deficiencies⁵¹.



Source: http://Wh6.ggpht.com/_0Vm9q0ROoR5L2s/XAm0uIAAAAAAACulq-hrckNjgPwDSC02118.JPG

Uses of *Solanum nigrum* L. (Okomamang)

NIF Database

Use from Arunachal Pradesh

Malaria

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

Uses from other states

Nasal bleeding

Boil dry fruit (25g) in mustard oil (100g) and filter. Apply the filtrate on the forehead
- Sahim Ansari, Lohardaga, Jharkhand

Mouth ulcer

Chew the leaves
- Shripal Singh, Bulandshahar, Uttar Pradesh

Cough

Take the root juice orally
- Priyanka Kumari, Gopalganj, Bihar

Fry the leaves of makoi (200g) in mustard oil (20ml) and take it orally with a little salt
- Sukhai Mali, Faridabad, Haryana

Jaundice

Take the root juice orally
- Suman Kumari, Gopalganj, Bihar

Stomachache

Take the fried leaves of *Solanum*, neem and *Vitex negundo* L. orally twice a day
- Moirangthem Mani Devi, Imphal West, Manipur

Uses in Classical Codified Literature

Powdered fruit is given orally to reduce fever³¹; juice extracted from the whole plant is applied externally on the burnt part⁵²; poultice of the plant is placed on the aching joint⁵³; fruits are ground and taken orally to cure diarrhoea⁵⁴.

'Herbolax'²² made from *Solanum* along with other plants is used as gentle laxative in case of constipation and for electrolyte balance. Ninety patents were found on its medicinal uses mainly on hepatitis^{55,56}.



Uses of *Tinospora cordifolia* (Willd.) Miers ex Hk. f. & Th. (Gujro)

NIF Database

Use from Arunachal Pradesh

Typhoid

Take the decoction or powder of the stem orally
- Yanueg Jamoh Lego, East Siang, Arunachal Pradesh

Uses from other states

Asthma

Take two spoonfuls 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) and sesame oil (5g), soak in water overnight. Take the filtered solution 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

Veterinary practice

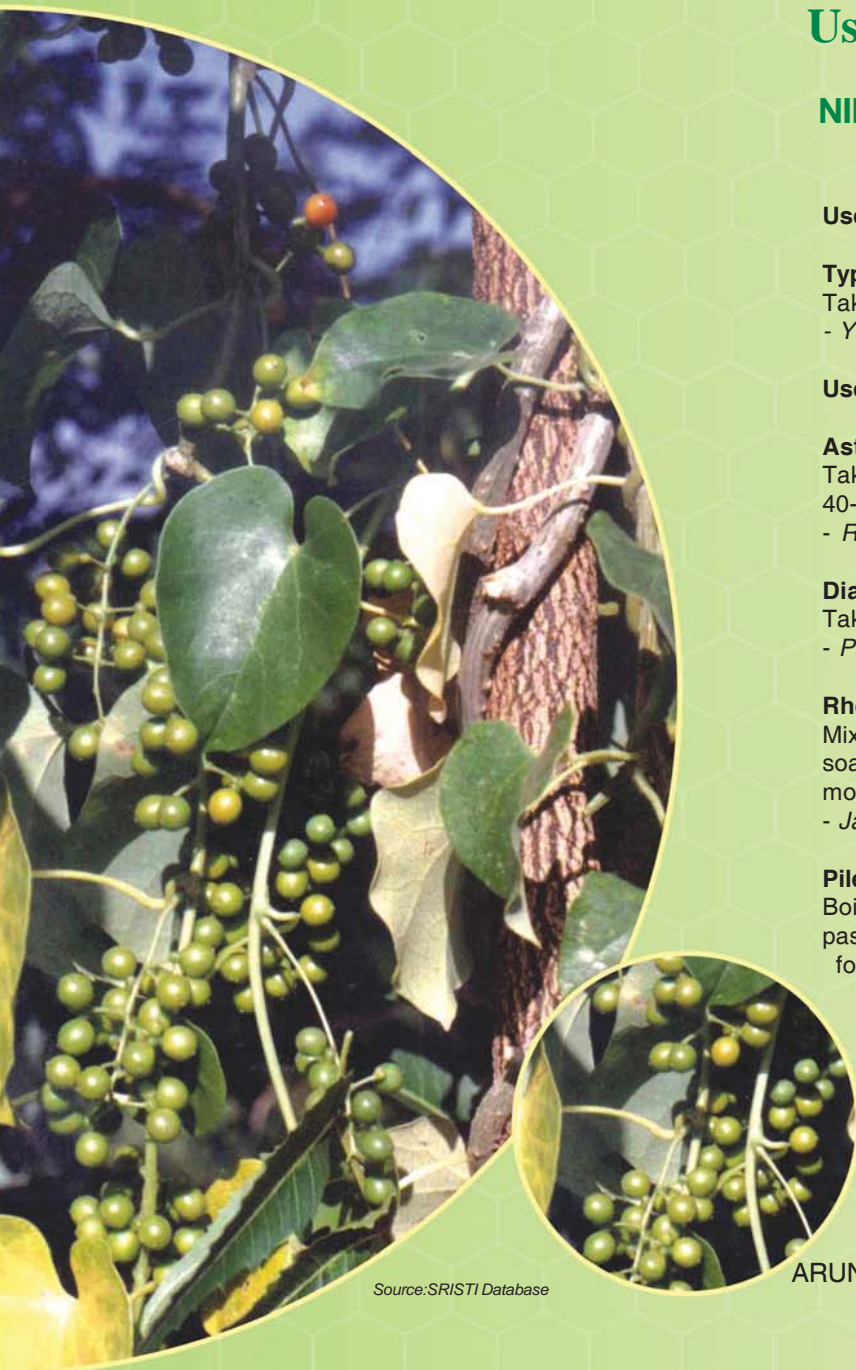
Anestrous

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

Uses in Classical Codified Literature

Powdered roots are taken to cure mouth ulcer⁵⁷; powdered plant is administered orally with honey to get relief from stomach disorder⁵⁸; the stem is bitter and is used as anthelmintic²; decoction of the plant is given orally to cure diarrhoea⁵⁹.

Tinospora is a well known medicinal plant and used to cure a number of diseases in combination with other plants with brand names 'Geriforte, Diabecon²²¹' etc. More than hundred patents were found on its medicinal applications as an antiallergic⁶⁰ and for cancer⁶¹ etc.



Source:SRISTI Database

Uses of *Vitex negundo* L. (Uttak)

NIF Database

Use from Arunachal Pradesh

Paralysis

Apply leaf powder along with other herbs topically
- Yanueg Jamoh Lego, East Siang, Arunachal Pradesh

Uses from other states

Ear pain

Boil the leaves in mustard oil and filter. Use the filtrate as an ear drop
- Bhagat Ram, Kangra, Himachal Pradesh

Stomachache

Take the mixture of powders (in equal proportion) of the leaves of *Vitex*, *Cocculus hirsutus* (L.) Diels. and *Bombax ceiba* L.
- Yusuf Khan, East Champaran, Bihar

Muscular pain

Apply leaves smeared with lukewarm mustard oil on the affected part
- Savita Kumari, Gopalganj, Bihar

Lumbago

Massage the leaf juice over the affected part
- Shreenand B. Dandekar & Meera Dandekar, Ratnagiri, Maharashtra

Rheumatism

Place lukewarm leaves on aching joints
- Naganath Durga Chogule, Sholapur, Maharashtra

Uses in Classical Codified Literature

Leaf smoke is inhaled to get rid of cough⁴⁷; in case of diarrhoea flowers are used²; extract of the plant is taken as a diuretic⁴⁷. 'Muscle & joint rub'²², is a highly effective medicine for backache, muscular sprain and joint pain. 'Dental Cream'²² is a formulated toothpaste that tightens and reduces swelling of gums, stops gum bleeding, prevents toothache, decay and controls bad breath. 'Atharva Nirgundi Siddha Tail'⁶² is useful in arthritis, joint pain, relieves oedema. Thirty-five patents were found on its medicinal applications mainly for rheumatic arthritis⁶³.



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 Livestocks and Poultry

Coccicure

Sudakarbhai K. Gaudi & Jeevalbhai M. Gaudi, 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.



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.

