

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 *Alstonia scholaris* (L.) Br. (Sotiona)

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 in 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 in 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 rheumatism¹; the root juice is taken with milk to cure leprosy¹; fresh bark is put in water to draw out the latex in it, which is taken orally in case of tuberculosis²; dried powder is administered orally to cure diarrhoea³; bark extract is useful in case of intestinal worms⁴. 'Ayush-64 cap./tab.'⁵, prepared from the plant, is effective as an anti-malarial compound both for treatment and prophylaxis. Fifteen patents have been found on its medicinal uses as an antipyretic⁶.



Source: http://www.mytho-fleurs.com/images/Fleurs_du_Vietnam/Alstonia_scholaris.jpg

Uses of *Camellia sinensis* (L.) Kuntze (Chai, Cha pat)

NIF Database

Use 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, Rajsthan*

Uses in Classical Codified Literature

Root extract has antineoplastic⁷ and anti-tumor properties⁸; hot water extracts show anti ulcer⁹, anti-diarrhoeal properties¹⁰; green and black tea has antioxidant property¹¹.

Green tea¹² 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 diabetes¹³.



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 cardi tonic¹⁴; bark powder is applied externally on wounds¹⁵; decoction of the bark is given orally to get rid of intestinal worms¹⁶; beverage of the fruit is taken orally to cure diarrhoea¹⁷. Natural moisturisers and creams¹⁸ are prepared from *Carica* in combination with other plants. Thirty patents were found on its medicinal uses such as an antiallergic¹⁹ and for prevention of cancer²⁰.



Source: 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* Willd., *Mangifera indica* L., *Punica granatum* L., *Psidium gujava* 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 leucoderma²¹; fruit juice is useful in jaundice²²; fruits are used as diuretic²²; root powder is applied in skin diseases²². Pilex¹² (Vein care) helps support metabolic processes involved in maintaining the vascular system's integrity for optimum health and appearance; Purim¹² (Hemo care) is used for blood purification. Six patents have been found on the medicinal applications of *Cassia fistula* as an antiviral²³.



Source: http://www.bh-froe.com/ZC/images/Cassia_fistula.jpg

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

NIF Database

Uses from Assam

Insomnia

Include whole plant's paste in daily diet
- *Khioram 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 tonic²⁴; powder of aerial parts helps to control high blood pressure²⁵; whole plant is diuretic²²; plant paste is applied as a poultice in case of bone fracture²². 'Herbal Tea'²⁶ is mainly indicated as a health drink. 'Mentat'¹² 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-depressant²⁷.



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

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 pyorrhea²⁸; leaves are useful in ulcer²²; young branches are warmed in fire and tied on the aching joint²⁹; latex is applied on the burnt part³⁰. 'Jatropha tincture'³¹ is used as a disinfectant, antiparasitic and anticoagulant. Thirteen patents have been found on the medicinal uses like for cuts, burns and wounds³².



Source: National Innovation Foundation Database

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 in 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 spoonfuls 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 headache²⁹; leaf paste is applied externally to cure cuts and wounds³³; fresh sap of plant is used for eye diseases³⁴. Product 'Regenerating Day Cream'³⁵, 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 antiobesity³⁶ medication.



Source: NIF database

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 spoonfuls of flowers' 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, Gopalganj, Bihar

Uses in Classical Codified Literature

Dried fruits are taken orally to get relief from cough³⁷; decoction of dried flower is given with jaggery as an anti-fertility agent in females³⁸; leaf juice is applied topically on ringworm and other skin diseases³⁸. 'Lupin'³⁹ 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 Leishmaniasis⁴⁰ and also for its natural property as a dye⁴¹.



Uses of *Phyllanthus emblica* L. (Amlakhi)

NIF Database

Uses from Assam

Stomach Ulcer

Mix fruit powder of Amlakhi (*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 two times 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 two times 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 dysentery⁴²; fresh juice of the fruit, mixed with pure cow's butter and honey, is administered to cure obstinate hiccough⁴²; juice relieves pain in urine trouble⁴²; pulp (2-3g) is eaten with warm milk to get rid of headache⁴³; powder of seeds after mixing with ghee is applied on the head to stop nasal bleeding⁴⁴; fruits are taken orally to reduce acidity⁴⁵; decoction of the fruit is taken to increase blood count⁴⁶. *Phyllanthus* is one of the main ingredients of well known medicines 'Triphala, Chavanprash and Amla hair oil'¹². Seventy-six patents have been found on its medicinal uses for diabetes⁴⁷, liver disorders and immune deficiencies etc.⁴⁸



Source: http://Wh6.ggpht.com/_0Vm9q0ROoR5L2sXAm0uiAAAAAACulq-hrckNjPwDSC02118.JPG

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 is cured
- D. K. Phukan, Guwahati, Assam

Diabetes

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

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), 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

Veterinary practice

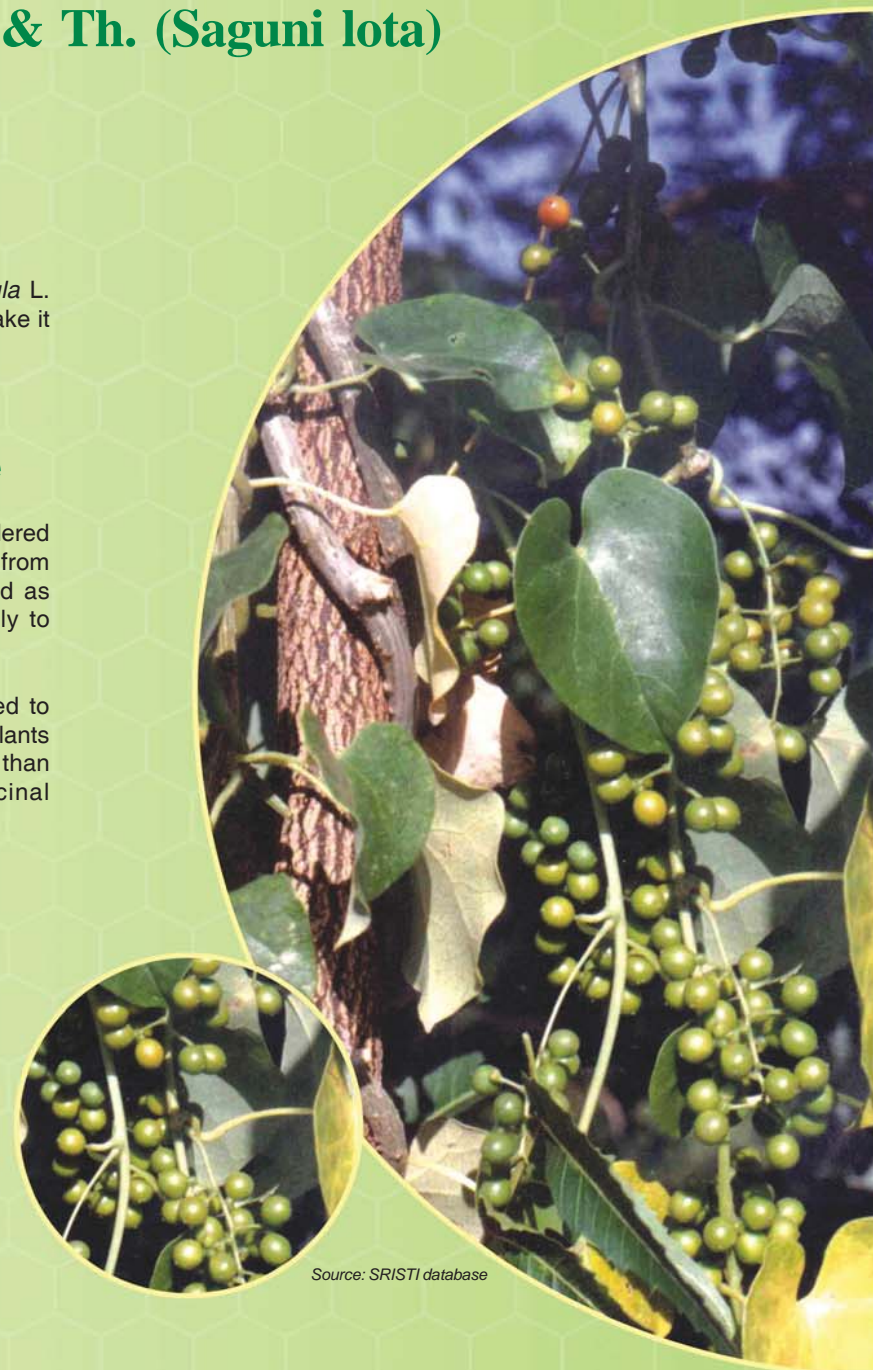
Anestrous

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 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 anthelmintic²²; 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, Diabecon¹²' etc. More than hundred patents have been found on its medicinal applications like an antiallergic⁵² and for cancer⁵³.



Source: SRISTI database

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.

