

HERBAL FOOD and MEDICINES in SRI LANKA



Dr. Seela Fernando

About the book

Plants and herbs are the breath of life & from the dim past, human beings have turned to them in sickness in health. This book is the result of some of the researches and experiences of the author with herbal medicine.

This book is a collection of some of the articles published in the "Ceylon Daily News" on herbes, under the title of 'Home Remedies'. It is also the outcome of a study conducted for the National NGO Council of Sri Lanka with the support from the Food and Agricultural Organization of the United Nations (FAO).

The book is based on ancient 'triple method' or the Wata, Pita and Kapha theory. These three forces, which constitute the Thridosha, regulate the normal working of the human body and are responsible for birth, existence & death (Utpathi, Sthiti, Bhanga).

Thirtyfive chapters of the book deal with decoctions 'Peyavas' and 'Kalkas', and home remedies. Three of the chapters deal with herbes. These describe herbes, such as corriander plant, asomodagam, asafoetida, parsley, penela wel, herbal tea, etc.

The book then goes on to describe various herbes/plants in detail, their botanical names, the ailments for which these herbes/plants are useful and the manner in which these herbes/plants can be used and taken. These are: ginger, onion, 'Karapincha' tree, roadside trees, tamarind, erabadu, margosa, fig tree, timbri, beli tree, jak, wood apple, oleandar. The book also describes usefulness of flowers and plants for healing, health and beauty.

Index to the book at the end enables the reader to use the book as a reference book

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DR. SEELA FERNANDO

**NAVRANG
2003**

FOREWORD

Herbs and herbal medicine have been my lifelong interest. I have studied and tested the combined experiences of many traditional Ayurvedic physicians of the past, and acquainted myself with the knowledge they contributed to the development of Ayurveda in this country.

Plants and herbs are the breath of life and from the dim past human beings have turned to them in sickness and in health. This book is the result of some of my researches and experiences with herbal medicine.

With the development of modern western medicine, science and technology people everywhere have been distancing themselves from the life and health giving properties of herbs and opting to pop pills and chemicals into their systems for their ailments. They have also, as good as forgotten that herbs can keep sickness away and prevent many illnesses.

The world is in great need of a renewal of interest in the curative value of plants. This is very true of this country too, even though, fortunately a large proportion of people do seek Ayurvedic remedies for their illnesses still.

This book is an attempt to remind those who have forgotten that herbs have valuable curative properties. It is also my offering to those amongst us, who have continued to have an abiding interest in the science of Ayurvedic medicine, herbalism and in the important role that herbs can play in our lives.

I am an eighth generation traditional, indigenous physician. I was a student of my beloved father, Welun Fernando, who practised Ayurvedic medicine for over half a century at Dewalapola in the Minuwangoda district. He was a student of the late Venerable Sri Sumangala Maha Nayake Thero, the great scholar and founder of Vidyodaya.

The study was conducted for the National NGO Council of Sri Lanka with support from the Food and Agriculture Organisation of United Nations (FAO). However the opinions expressed in this study are those of the author and do not in any way represent the views of FAO. The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area, or of its authorities, or concerning delimitation of its frontiers or boundaries.

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During my medical studies under my father and in the course of my internship with him, I was trained both in herbal and traditional medicine. From him I also learnt the Oriental languages.

I chose the treatment of haemorrhoids as my speciality, but I realised that I had to know and understand herbs and make a deeper study of them as part of my medical learning. This knowledge of herbalism is part of my formal training.

My husband and my children have been of immense support to me in the encouragement they have given me in my study of herbs and herbalism and in the practice of Ayurvedic medicine.

Among the many people who have helped and encouraged me through the years, I must first mention the late Venerable Pimbure Sorata Thero, the well-known scholar. He was my respected mentor and guide in many matters. With him I have discussed on many an occasion a variety of herbal remedies and gathered from him invaluable information on herbs. My humble gratitude is due to him.

The late Mr. L.P. Gunatilaka is another friend to whom my thanks are due. It was he who helped me to publish my first article on the curative value of ginger in the 'Ceylon Daily News' in 1977.

The first of my public lectures was arranged by Mr. R. Bodinagoda, who was then President of the Y.M.B.A. Later, I had the opportunity to speak at many gatherings on indigenous medicine and herbs. It also led me to meet and discuss this subject with many experts and interested persons who participated at scientific conferences and seminars, both at the national and regional level.

Later on, I began to contribute a column to the 'Ceylon Daily News' on herbs, under the title of 'Home Remedies'. From the correspondence I received it was clear that the column created a great deal of interest. For nearly three years I received letters and inquiries from local and foreign scholars, interested or curious persons, enthusiastic readers and patients.

This book is a collection of some of the articles published in the 'Daily News'. I hope that this book will lead to the greater use of these Home Remedies, now that they are readily available in a book.

I have tested many of these remedies on my youngest daughter, Anusha and my eldest son, Lalith, who is another lover of nature. It is

hoped that those who are interested in increased vitality right from childhood, through maturity to a satisfying old age, will find these herbal remedies and advice on the subject of herbs useful, and be encouraged to use them as the occasion demands.

I believe that the doctor of the future has to be a teacher as well as a physician. He will have to show people how they can be healthy, prevent the onset of certain ailments, lead active lives and be free from disease to the very end of their days.

In the preparation of this book, I have referred to the works of other authors from Sri Lanka and India. I have to acknowledge with thanks the references I have made to the 'Materia Medica' written by the late Dr. John Attygalle, the 'Materia Medica of India', 'The Vegetable Products of Ceylon' by Frederick Lewis and the 'Chemistry and Pharmacology of Ceylon and Indian Medicinal Plants' by J.P.C. Chandrasena.

I have also to express my gratitude to Mallika Wanigasundara, a journalist and my good friend for the assistance she has given me and the interest she has taken in getting this book edited.

My thanks are also due to Mr. Gamith Padman, Assistant Lecturer, Department of Botany, University of Colombo, for having helped me to get the sketches for this book. I must express my very sincere thanks to Lucky Senanayaka who drew the cover design. It depicts a scene from Sinharaja forest and the plant seen in it, is Weniwalgeta (*Cosinicum fenestratum*). Finally, I wish to thank my friend Mrs. Louisa Wijesinghe who helped me immensely by typing my manuscript.

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AYURVEDA

Ayurveda is the science of health and healing, practised by the ancient Aryans. This science is based on Atharva-Veda, one of the oldest scriptures of the Hindus which is about 3000 years old. It is an encyclopaedia of ancient medical wisdom. In spite of its antiquity it is practised even today by at least one fifth of the human race, Ayurveda is not considered to be merely a summary of therapeutics based on herbal, animal and mineral resources of the world. It is a philosophy of life and living; its object is to counteract the imbalance of the three essential forces Wata, Pita and Kapha. These three forces constitute the Thridosha, from which the human body originates. This Thridosha regulates the normal working of the human body.

The ancient "triple method" or the Wata, Pita and Kapha theory cannot be translated as wind, bile and phlegm, for the simple reason that a part cannot be equal to the whole. The Thridoshas are organic, material entities in control of all organic creation and are responsible for birth, existence and death (Utpathi, Sthiti, Bhanga). Just as the potent, celestial triad of moon, sun and air is responsible for the smooth working of the universe, similarly the Wata, Pita and Kapha are responsible for the smooth working of organic creation. The genealogy of the Thridosha theory can be traced to ancient Vedic times. It is vast in its teaching.

The Thridosha are once again connected with the Seven Dhatus and the Malas. The Seven Dhatus are Rasa, Raktha, Mansa, Meda, Asthi, Majja and Sukra. The three Malas are excreta, urine and sweat. The base of these are the external five elements. So in all, the body consists of thirteen physical constituents. Their physiological functions are Wata dosha, Pita dosha and Kapha dosha. The functions of the seven Dhatus are

(1) Rasa (Blood) : As a forerunner of raktha or

- blood, it primarily nourishes the body and the mind.
- (2) Raktha : Sustains life, nourishes the muscles and flesh and maintains the complexion.
- (3) Mansa : Embraces the skeletal structure, nourishes the fatty tissues and helps excretion.
- (4) Meda : Greases the limbs, eyes, nose, ensures stability by nourishing the bones, large and small.
- (5) Asthi : Maintains a sturdy, erect bodily structure and stature nourishing the marrow.
- (6) Majja : Forms bulk inside the bone cavities, thus giving strength and nourishment to the seminal fluid.
- (7) Sukra : Gives strength and joy plus a capacity to procreate.

A unique feature of Ayurveda is that even Malas have been described as having or serving a useful purpose in the body economy.

- Faeces : Give temporary support in general to the body besides keeping the body heat and air intact.
- Urine : Maintains fluid balance by throwing out the liquid ingested and consumed through food and drink.
- Sweat : Retains enough moisture in the body and grease in the skin and promotes the growth of hair.

The minute details such as symptoms that arise when Dosha Dhatu, Mala are increased or decreased are taught in Ayurveda.

The most interesting teaching is the subdivision of each Dosha and their particular functions and sites. For example the Watadosha is divided into five; they are Prana, Udana, Vyana, Samana and Apana. The Prana Vayu resides in the cerebral hemisphere extending up to the neck region. Its functions are activation of the intellect, brain activity, psychic activity and integrity of nerves etc.

The Udana Vayu resides in the chest extending up to the navel. Its functions are speech, energy, integrity of various channels, intelligence, bravery, memory and psychic alertness etc.

The Vyana Vayu resides in the heart extending to all parts of the body, and its functions are fast motion in various directions, relaxation, contraction, purification of body channels, blood circulation and other fluid circulations, and post-digestion analysis of food consumed.

The Samana Vayu resides in the navel extending along the lower digestive tract. Its functions are fanning of the gastric fire. This includes digestion, assimilation, selective analysis of the food consumed and carrying away of waste products further downwards.

The Apana Vayu resides in the pelvic region extending downwards all along the urinary bladder, genital organs and thighs. Its functions are urination and defaecation, passage of semen, menses and child delivery.

The details of Pita and Kapha are also given in such detail that the physician who masters them could hardly go wrong in his diagnosis and treatment.

One of the most significant concepts of Ayurveda is giving first preference to maintenance of sound health and achievement of a long and useful life. Evidently the ancients also believed in the motto of prevention being better than cure. In the section on health and hygiene, the Ayurvedic Acharyas have clearly described the rules and regulations for keeping diseases away, under the following heads. This is active immunology and hygienology.

- (1) Din-charya : or the daily routine

- (2) Ratu-charya : or the seasonal adaptations
- (3) Sad-vritta : or mental culture
- (4) Attending duly to "Nature's Calls".

Din-charya is found in the Third Chapter of Astanga Sangraha. Wake up early and attend to nature's calls. Brush teeth with fresh green twigs, which are astringent, bitter and pungent in taste, like the twigs of Neem or Pilla (Tephrossia Purpurea, and Bombi Lisea Sebifera). Clean the tongue, eyes, ears, nose. Put drops of oil in both nostrils and ears (Better done at bed time). Take an oil massage and bath. Rub the oil particularly well on the hands and soles of the feet and also on the head and specially on the crown. Take regular exercise and eat lunch in a happy frame of mind. Have a light evening meal and go to bed in a comfortable cot at an early hour. This Din-charya has a scientific background and basis.

The Tridosha theory is the being and very soul of Ayurveda. All other theories and principles are built around it and based upon it. The early morning hours are what are known as the Wata-Kala. The year is divided into six seasons. The food, clothing and mode of living during these seasons are clearly shown.

The Ayurveda Acharya insists on psychic health and mental purification. Practical guidance is given for using daily life to make every human being an ideal citizen with the attributes of good behaviour and conduct.

Ayurveda also shows us how important it is to attend to nature's calls at the proper time. The timely attention to nature's calls—hunger, thirst, defaecation, sleep etc., keep disease away and maintains health. No other medical "pathy" seems to have paid any attention whatever to this aspect of physiology, thus ignoring the very base and foundation of sound health and long life.

The Fifth Chapter of the Astanga Sangraha is very aptly named Roganutpadaniya and it teaches how to keep disease away. Hence the instinctive need to defaecate or urinate, to eat, drink or sleep, to yawn or vomit, cry or laugh must be attended to. Habitual non-attendance to these, creates Wata-dosha, and upsets the doshic balance

and causes disease.

In general Ayurveda has its own pathology. It is called Samprapti. This Samprapti has progressive steps and stages. Chayavastha or the communicative stage, Prakopastha or the 2nd stage, and the Prasavastha or the spreading stage. During all these stages, the unique quality of the Ayurvedic approach is to ward off diseases and maintain active immunity. It is on these four main solid pillars that Ayurvedic hygienology rests.

Ayurveda is the name given to the science of medicine which prolongs or guards one's life. Whatever the method it uses the main target is to save life.

Ayurveda has a separate system which lays down the forms and the special modes on which medicine is administered to patients. Churna, Svarasa, Kalka, Kvatha, Phanta, Sitakasaya, Paniya, Kshirapaka, Yavagu, Avaleha, Modaka, Vatika, Khandapaka, Bhavana, Putapaka, Sandanavarga, Kanjika, Dravaka, Asava, Arishta, medicated oils, Ghritas and many more. Each of these medicines are prepared in different ways.

Churna - or powder is prepared by pounding dry substances in a mortar with a pestle and passing the powder through a cloth.

Svarasa - or expressed juice is prepared by pounding fresh herbs in a mortar, extracting the juice and straining it through a cloth.

Kalka - or paste is prepared by grinding dry or fresh herbs on a stone with a mallet and then making a thin paste with the addition of water when necessary. These are also mixed sometimes with honey and sugar and cooked or boiled in ghee until they are reduced to a certain consistency. These medicines can be kept for a long time.

Kvatha - or decoctions are as a general rule prepared by boiling one part of green herbal substances with sixteen parts of water, till the latter is reduced to one fourth. The medicine should be first pounded into small pieces, then boiled over a slow fire, and the decoction strained through a cloth. When decoctions are prepared with dry herbs, eight parts of water are recommended. Decoctions are administered with the addition of honey, sugar, treacle, clarified butter, oil or some medicinal powders. A general rule to be observed for a decoction of one part (about

a pint), no matter what the number of herbs are, is that the herbs should not, in the aggregate, be more than 12 kalans. If there are 3 herbs each should be 4 kalans and so on. If the herbs are too many, the quantity of water should be increased proportionately. As a rule it should be 8 parts of water added to the herbs, and reduced to one part of water by boiling over a slow fire.

Phanta - or infusions are prepared by steeping one part of powdered herbs in 8 parts of hot water for 12 hours during the night. They are administered in the same way as decoctions.

Sitakasaya - or Cold infusions are prepared by steeping one part of a herb in 6 of water for a night and straining out the fluid in the morning.

Paniya - is a weak form of decoction, prepared by boiling one part of medicinal substances in 32 parts of water till the latter is reduced to one half. This preparation is usually taken for appeasing, thirst or some such thing.

Kshirapaka - or milk decoction. The proportion for this is one part of herbs, 8 cups of milk and 22 cups of water. The ingredients are boiled together till the water is evaporated and the milk alone remains. The decoction is then strained.

Yavagu - sometimes medicines are added to powdered rice or powdered rice added to the decoction and made into a gruel.

Aveleha - or extract. The decoction after being strained is again boiled down to the consistency of a thick extract.

Modaka - for this preparation no boiling is required. It is prepared by adding powders to cold syrup and stirring them together till they are uniformly mixed.

Vathika - or pills. These are usually prepared by reducing a decoction of herbs to a thick consistency and then adding some powders for making a pill mass. Sometimes powdered medicines with the addition of treacle or honey are used.

Khandapaka - or confections. These are made by adding to a syrup, medicines in fine powder form and stirring it over the fire till it is well mixed and reduced to the proper consistency.

Bhavana - or maceration of powders in fluids. This is specially done with mineral substances. These are often soaked in various fluids, such as expressed juice of herbs, decoctions etc. and then dried. For this process the quantity of fluid added to the powder should be sufficient to cover it. The mixture is then allowed to dry in the sun. A single operation of this sort is completed in 24 hours, but the process is generally repeated from 3 to 7 times and afterwards with a variety of fluids. This ensures that the resulting mass combines within it the active properties of various herbs.

Putapaka - or roasting. In this form raw herbs are reduced to a paste; they are wrapped up in jambu or plantain leaves firmly tied with fibres of some sort, covered with a layer of clay and roasted in a cowdung fire. When the layer of clay assumes a brick red colour on the surface the roasting is complete. The medicine is taken out and the juice is squeezed and administered with honey or medicinal pills.

Sandhanavarga - or products of acetones fermenting like vinegar.

Kanjika - This is a sour liquid produced from acetous fermentation of powdered rice and dried habala pethi and not the canjee water which is common. This is prepared in a different way. Two seers (cups) of habala pethi are steeped in 7 seers (cups) of water and laid aside in an earthenware pot for 15 days and upwards. When the mixture undergoes acetous fermentation, the fluid is called Kanjee or Dhanyamala. Kanjee is a clear transparent fluid with an acid taste and vinous smell. It is cooling, refreshing and useful as a drink in fever, burning of the body etc.

This medicine is at times used as an external application for the relief of high fever. A wet sheet can be used as a wrapping cloth. This is steeped in fluid and wrapped round the body for the relief of high fever and to reduce the heat of the body. This is not unlike the wet pack treatment adopted by Western practitioners for pyrexia. It must also be noted that this mode of treating cases of continued fevers with high temperature was one that came into vogue among western practitioners not more than 20 to 40 years ago : but strange to say, it is seldom or never practised by their successors of the present day.

Asava - This has a special method of preparation. Asava is not boiled. Dry herbs are steeped in 22 seers of water, adding 12 seers of honey and is then laid aside in an earthenware jar for fermentation. This jar is covered and made air tight. It is then covered with clay and kept in a dark corner.

Arishta - To every pound of medicine one bottle of water is added. It is then boiled down to one fourth of the quantity. Then it is strained and to every bottle of infusion 3/4 pound of sugar and powdered medicine is added and buried underground and covered with clay for one month. It is taken out later and strained through a cloth. It is almost like wine when correctly done. It is administered as a stimulant in exhausting diseases.

Gritas - are mostly prepared with powdered medicine cooked in ghee and sugar. It is a prominent feature of native practice. They are prepared in great variety and are extensively used in all sorts of diseases.

Medicinal Oils - These are always prepared with green herbs. In preparing these sesame oil, castor oil and mustard oil are added.

Ayurveda is a common name for the science of medicine that prolongs or guards one's life. Whatever the method it employs the main target is to save life. Sri Lanka had its own system of medicine.

It is known as Indigenous medicine or Desiya Vedakama. It was a very rich science, though in recent years it has been declining. Indigenous treatment depends totally on herbs or plants.

The Indigenous physician need not have many varieties of herbs for his practice. One kind of herbal plant is used in many diseases. The different parts of the plant possess different curative properties. The efficiency of the herb depends on the total effect of the plant content rather than on the one or more chemical fractions separated from the herb. Moreover the time of collection, stage of growth of plant, locality, natural occurrence or place of cultivation, all influence the properties of the herb.

History proves that we had a valuable system of medicine. Sri Lanka is a granary of herbal plants. The more we peep into our gardens or neighbouring groves the more can we collect enough herbs for any

emergency such as for cuts, bleeding, aches and pains. We need not borrow any medicine from other sources.

All we need to do is open the old manuscripts and identify the herbal plants and learn their uses. These herbs have been tested and experimented with a thousand and one times. The traditional physicians have with them the secrets of this valuable medicine, but they fear to part with them. The reason for this is that when medicine is commercialized, the tendency is for it to be adulterated. The most essential thing for the upliftment of the Indigenous practice is to enrich the knowledge of students in the use of herbs with the aid of the traditional physicians. They have much valuable knowledge which cannot be proved scientifically.

AYURVEDA IN SRI LANKA

The system of medicine practised by the Ayurvedic physicians of Sri Lanka is almost identical with that of India. Its history dates back to many thousands of years, and the books said to have been compiled by Rishis. These Ayurveda books are complete works of science including even the teaching of surgery and anatomy and they contain descriptions of surgical instruments used at that time.

Ayurvedic science in Sri Lanka shone at its best during the reigns of Kings Buddhadasa and Parakramabahu the Great. During these days, every Sinhalese of noble birth was expected to know Ayurveda; besides Royalty, they included Buddhist monks and poets. These physicians attained a high degree of efficiency in both medicine and surgery; yet they did not work for pecuniary gain. Even the Sinhalese kings, among whom were famous surgeons and physicians, practised medicine as an act of service to gain merit.

It may be interesting to inquire at this point why the indigenous system of medicine with such a historical background fell into disfavour. This disfavour may not be due to any grave defects in the system or the medical science itself. It could be due to a misconception on the one hand and utter ignorance on the other. The Ayurvedic theory of causation of diseases is founded on the theory of Vayu, Pita and Kapha; many fail to gather their true meaning.

In Ayurvedic literature, Vayu, Pita and Kapha are mere technical terms used to mean three conditions or forces or doshas. They are supposed to exist in the human body and they can only be recognised by the phenomena they exhibit, as the forces themselves are intangible to the senses.

They should not, therefore, be understood in their literal sense. Pita does not mean bile but signifies heat production and includes the process of digestion, the formation and discolouration of blood and all the secretions and excretions. Vayu does not mean the wind we feel, but functions as respiratory, assimilation, speech, memory, relaxation and

contraction pervading the whole body. Kapha does not mean phlegm, but primarily implies the heat regulation and the formation of all preservative fluids and secretions including the circulation of blood which was known to Ayurveda before Sir William Harvey discovered it in the 17th century.

According to the Ayurvedic theory of causation of disease by Vayu, Pita and Kapha health is maintained, so long as three doshas or forces, retain their equilibrium in the body. As soon as one or more of them are disturbed, it causes ill-health. When a condition is brought about by any cause or causes that disturb all three doshas, the condition is called 'Sannipatha' (typhoid state) by the Ayurvedic physicians.

The Sannipatha is not confined to fever alone, but may be met in other diseases, such as cholera and acute diarrhoea as well. It is obvious then that there is nothing irrational in this Ayurvedic theory of the causation of diseases, and it remains a fact that the sick are restored to health, when treatment is applied based on this theory.

This theory does not conflict with the theories of the West in this field. However it must be realised that Ayurveda was practised over the last three or four thousand years, while the Western system has a history of only three or four centuries: but in these same few centuries we have also had the greatest advancements in scientific knowledge. But this has not made the Ayurvedic system seem archaic or useless in the light of new knowledge.

In many parts of the Island, people still have confidence in indigenous treatment. The main reason is that the indigenous physician is available in their hour of need. Even without state aid and without any facilities they still continue their valuable traditional medicine. This shows the usefulness of indigenous medicine to relieve mankind from suffering.

Dr. George Clarke, M.D., M.A. of Philadelphia after reading the translation of Charaka says: "As I go through a part of Charaka, I come to the conclusion that if the present day physicians drop all modern drugs and chemicals from their Pharmacopoeia and adopt the methods of Charaka in treating diseases, there will be less work for undertakers and fewer chronic invalids in the world."

Dr. John Attygalle in his book "Materia Medica" gives us his knowledge and experience with native physicians. They have no modern knowledge of antiseptics or aseptic methods in their treatment. Yet the Doctor admits how the patients recover without any blood poisoning or other ill effects. The reason for this is that the remedies used possess antiseptic properties as known to Western treatment.

The indigenous practice of medicine has a vitality that the extensive spread of Western medicine has not been able to oust. Mild refinement of indigenous medicine may not damage the medicative properties. In India we find indigenous medicines in the form of tablets, pills and powders and the Western practitioners there administer the native medicine when the Western medicine fails. But there is no mixing of Western drugs and native medicine.

Having an advanced science of medicine with us, we have still not put it to the best use. The main reason could be the mixing of drugs by Ayurvedic physicians. So in the first place future Ayurvedic physicians should be trained to gain absolute confidence in the knowledge of their system of medicine. Only non-confidence in their own system would make them mix or resort to other systems.

The next drawback is that the native physicians rarely compose their prescriptions guided by a knowledge of the curative properties of the different ingredients. They use the prescription found in the old works and neither deviate nor add anything from personal knowledge or experience with Ayurvedic ingredients. They have left the science of Ayurveda at the point where the Rishis have left it. The reason for this is the lack of knowledge of the therapeutical properties of the ingredients. A complete knowledge of the curative values of the ingredients is very essential. This was considered an essential part of the preliminary education under the Gurus.

The esteem in which the profession is held is the other important thing. The Ayurvedic medical profession was held in the highest esteem. Physicians practised merely to gain merit and not for worldly benefits. Their motto was "Relieve suffering mankind at all cost". For instance, Charaka tells his pupils: "Not for sale, not the fulfilment of any desire, not for earthly gain, but solely for the good of suffering

humanity. Those who sell the cure for diseases as merchandise, gather the dust and neglect the gold."

It would indeed not be easy to carry out Charaka's injunction today, but this can be adequately compensated by sincerely feeling for the sick and the diseased. The nobility of the honourable profession is lost when one's treatment is advertised in the mass media. Curing patients alone is sufficient publicity for a medical man. One reason for the downfall of Ayurvedic treatment is the countless sellers of oils and other medicines at various spots where the public gather. Our valuable treatment does not need soap box or curbside orators.

The gap between the Western doctor and the Ayurvedic practitioner must be brought much closer. A sound knowledge of the English language is very essential, to enable exchange of views and ideas of the two systems. English can be an easy medium for this purpose. The Ayurvedic books must be translated into English. Books like the Sinhalese "Materia Medica" would certainly give the Western doctors an insight into the Ayurvedic form of treatment.

We are urging the practice of both forms of treatment under one roof. This definitely is a step in the right direction and is bound to bring good results to us all in Sri Lanka.

20th CENTURY RESEARCHERS

One of the advantages of the home remedies I have been writing about is that they have been practised for many hundreds of years in Sri Lanka and in India. Another advantage is that there are no adverse after effects or side effects or danger of drug poisoning.

It is a matter for regret that Sri Lankan practitioners of Western medicine have paid so little attention, if at all, to the many useful and simple medicines of our native medical men. In India on the other hand the interest of Western medical practitioners was drawn to ayurveda as far back as the early 19th century.

However, the Sri Lankan research workers of the early 20th century are worthy of mention. They are Dr. Emmanuel Roberts and Dr. John Attygalle. Emmanuel Roberts was born in 1864, became a doctor at 23 years of age and entered Government service. He left Ceylon in 1902 to study in London and Glasgow. On his return to Ceylon he gave up his career in Government service and settled down to do General Practice and Research. The outcome of his research was "The Vegetable Materia Medica of India and Ceylon" which he produced in 1917. This book brought ayurveda to the home by giving several simple prescriptions within the reach of any Ceylonese home.

It is heartening to see that the Government is promoting research in this vast field due to the interest shown in the revival of the ancient Sinhala Medical system. This is specially due to the fact that the treatment is much cheaper than Western Medicine and effective as well.

It is interesting to read what Robert Knox had to say on this subject. He says "Here are professed Physicians but all in general have some skill that way and are Physicians to themselves. The woods are the Apothecaries shops, where with herbs, leaves and rind of trees they make all their Physic and plasters with which they do notable cures." That is history. Now let us try to go back to those herbs at our door steps which will certainly keep us healthy and wealthier too.

Kapparavelliya is a plant worth mentioning. It is very much like

Iriveriya and is of the same family. It is effective in catarrhal affections of children. A very useful prescription for whooping cough is Kapparavelliya, Kalandurua ala heerassa and red onions taken in equal quantities, pounded and its juice extracted. To this extract, an equal quantity of water is added together with sugar candy (sukiri) and brought to the boil till it becomes like a thick syrup. The dose is a teaspoonful or two as required. It has a marked effect in shortening the duration of the disease from about three months to as many weeks. If kept too long it is liable to ferment. Care should, therefore, be taken to see that it is prepared afresh every two or three days. It is also used as a medicine for treating cattle diseases.

Lunuwila, another useful herb, may not be found in the home gardens of all urban dwellings, but it is readily available in the vegetable market. For high fever resulting from chickenpox and measles, Lunuwila, aralu and kottamallie boiled as for a decoction is given with sugar to taste. If fever is accompanied by cough valmee and pathpadagam (from the Beheth Kaday) may be included.

Pumpkin or Wattakka is found in plenty and is cheap too. Jaundice and fever patients who are given a cup of pumpkin juice with an equal quantity of cow's milk and honey or sugar to sweeten it, feel greatly relieved. It is good for cases where there is flatulence with constipation as it acts as a purgative. The same is given to haemorrhoid patients too. The late Dr. White who practised in Colombo many years ago used pumpkin as an external application in cases of pneumonia and it is said that the Chinese doctors also use it for the same purpose.

Cucumber or Pipinna is the name given to this vegetable by the Portuguese. It has the same proportion as most of the cucurbitaceae family and is used chiefly in cases of fever and diseases of the urinary organs.

Kekiri (Cucumis melo) is a cooling diuretic. It is nutritious and edible. It is used in painful and frequent passing of urine and retention of urine. There are many decoctions prepared with Kekiri seed. One of them is Kekiri seed, sahindalunu, cardamoms and tippili taken in equal quantities and powdered finely. It is to be taken in fermented toddy in the morning. The dosage is 2 tablespoonful of powder in a glass of toddy

or fermented rice water (*halpana watura*) in cases where there is difficulty in passing urine or retention of urine.

In the Karavila or bitter gourd family there are two varieties - the cultivated kind and the wild growing thumba karavila. It is a wholesome vegetable usually given to convalescents. It is a domestic remedy for sores caused by urine infection. An effective remedy for weeping eczema and irritation is to first prepare a mixture of roasted karavila leaves well powdered and ground together with dried arecanut (*karunka puwak*) in equal quantities. Sprinkle gingelly oil over the affected parts and dust over with the powder. Karavila leaves roasted and powdered are applied on the scalp with pepper, coconut milk and sandalwood powder in cases of ring-worm on the head (*undugowwakema*).

DECOCTIONS, "PEYAVAS" AND "KALKAS"

Indigenous medicine is a self-reliant system with its own philosophy. It has unique medical methods in preparing peyavas, putapakas, kalkas and oils.

The decoction is fairly well known among the Sinhalese. Boil 8 cups to one cup. Peyava is to boil the ingredients in eight cups of water and simmer it down to four cups. Then you have to add the pori or rice pop-corns and boil again to one or one and a half cups. For the Putapaka the raw herbal leaves are pounded and steamed under hot embers and the juice extracted. For the Kalka the herbs are ground and boiled into a paste with sugar candy or sugar.

The popular remedies of herbal medicine were common throughout this country for many centuries until the advancing tide of synthetic drugs. Vegetable drugs have been known over the world for ages. Thousands of herbal plants are now recognised as drug-yielding plants in Europe and America.

A large number of plants of medicinal value are common weeds; some agricultural and horticultural crops commonly cultivated also have medicinal properties. Many of our herbal plants have economic use as well and therefore they can be described as useful plants too. These plants are used in making perfumery extracts and even cosmetics.

Walmi (*Phaseolus adenanthus*) or wild liquorice is a common herb. The juice of Walmi is given for sore throat, dry cough and urinary ailments. The juice is also a good blood purifier. A paste of the leaves made with some gingelly oil applied over swellings, rheumatism etc., brings great relief; the leaves dipped in hot mustard oil or honey are used for the same purpose; a poultice of the leaves is used for removing freckles. A paste of walmi leaves and the roots of *Plumbagorosea* or *Ratnital* is a stimulant dressing when applied over leucoderma patches for one month.

The Anoda or *Abutilon Indicum* grows mostly on waste lands.

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It is better known as bethanoda, a shrubby plant. The leaves are smashed and boiled with rice flour for use as a poultice for sores. The flowers and leaves are used as a local application for boils and ulcers. A decoction of the leaves is used as a mouth-wash for tooth ache and tender gums. A decoction of the leaves gives a soothing effect to the inflammation of the bladder and urethra. The roots are diuretic and their infusion makes a cooling drink in case of fevers.

The seeds are used in a decoction for haemorrhoids. These seeds are poisonous when taken in large quantities, but in old books it is said that women ate the seeds as a contraceptive.

Another common herb is Adathoda or pavatta or Agaladara in Sinhalese. In English it is called the Malabar nut tree and its botanic name is Adathoda Visca. The leaves contain powerful curative values specially for the treatment of chest diseases. It is a special remedy for Pthisis or consumption. An infusion of fresh pavatta leaves, two or three tablespoons mixed with one teaspoon of ginger juice and bee's honey is very effective for the treatment of coughs accompanied by a heavy chest. A decoction prepared with Adathoda roots, Katuwalbatu (*Solanum Jacquini*) Elabatu, raw ginger and Tippili root (long pepper) of equal quantities (2½ kalandas) is very effective for severe coughs and for catarrhal fever.

Another preparation with Adathoda consists of the juice of raw Adathoda leaves (4 tablespoons), Thippili powder (16 tablespoons), white sugar or sugar candy (2 ounces), ghee (10 tablespoons). Boil them together till reduced to the consistency of an extract; when cool add one tablespoon of bee's honey and stir it well till it is well mixed.

Dose : one or two tablespoons for a cough with pain on the sides of the chest or Asthma. Adathoda roots could be used as coffee powder specially for chronic bronchitis. Adathoda roots, bark, flowers, leaves and fruits are all used in medicine. A poultice or the leaves is applied over fresh wounds, rheumatic joints and inflammatory swellings. A warm decoction of the leaves is used for scabies and other skin diseases, neuralgic pains and bleeding from the nose.

Smoking is harmful for the lungs, but smoking dried leaves of Pawatta is a cure for Asthma.

Garlic is cultivated as a spice. It contains a large quantity of medicinal properties. It is given in fevers, coughs, flatulence, disorders of the nervous system, dropsical affections, pulmonary phthisis, whooping cough, gangrene of the lungs and dilated bronchi.

A decoction of garlic made with milk and water is given in small doses in hysteria and sciatica (an inflammation of the sciatic nerve at the back of the thigh). Garlic in the form of a syrup is a valuable remedy for Asthma, hoarseness and disorders of the chest and lungs.

It is a disinfectant. It is applied to ulcerated surfaces and wounds. A poultice of the bulb is used for ring-worm. The poultice is applied on the abdominal and public regions in cases of retention of urine due to lack of tension or muscular power of the bladder. Raw garlic juice can be inhaled during a bout of whooping cough. The oil in which garlic has been fried is a useful liniment for rheumatic pains, nervous diseases like infantile convulsions and very old wounds.

The oil extracted from the pods is given for checking chilly fits or intermittent fevers.

The recent valuable article written by Manel Tampoe "Towards an Ayurvedic Renaissance" is eye-opener to those well-wishers who want to nurture Ayurveda back into a revitalised medical system. The large and valuable contribution which indigenous physicians would give to medical knowledge in this country is still awaited.

During the present calamity caused by the cyclone indigenous medicines could easily be used as they are known to country folk. I suggest that at least ginger and corriander in sufficient quantities be made available to these victims.

HOME REMEDIES AT YOUR DOORSTEP

Ayurveda is a subject widely spoken of in Sri Lanka today. Ayur means long life, and veda means science, the science of long life. It would therefore apply to all medical systems, although it has come to mean the Eastern system only.

Sinhala medicine has a long history and probably dates as far back as the origin of the Hela or the Sinhalese nation itself. In the last two centuries however during foreign domination our ancient system of ayurveda might have been lost forever, but for the efforts of a devoted few who received Pirivena education.

The purpose of this article is to pinpoint common herbs and plants which literally grow at our door step, and which could be used at very little cost as home remedies in common ailments. The native physicians did not have a great variety of ready-made or prepared medicines. They had a few Guli, Kalka, Arista and Asawa, but these they used with the juice of a variety of herbs grown in their own home gardens to treat different diseases. Therefore we see that it is really the herbs in various combinations that do the good work.

The more common home-grown plants are Ginger, Saffron, Katurumurunga, Plantain, Papaw, Sugarcane and King Coconut. Today many of these are grown on a commercial scale and even the cultivators themselves do not know their medicinal value. Ginger is known as Mahausadi in Ayurvedic circles. Besides, it has 20 epithets when in the raw form and 24 when dry. The Dravya Guna Niganduwa, the Encyclopaedia of tropical plants and drugs used in Ayurvedic medicine describes it as acrid and digestive and, as an ingredient in medicine for costiveness, nausea, cough, colic and palpitation of the heart.

But dry ginger should not be used by those who are suffering from skin diseases, anaemia, kidney complaints and high fever. A person suffering from acute diarrhoea and vomiting is generally liable to catch a chill. A piece of ginger, a piece of equal size of the bark of the murunga tree and a few bulbs of garlic all crushed and rubbed on the

palms and soles of the foot and also a little of it tied on to the two big toes would warm him up. For diarrhoea and colic, the liquid extracted by crushing together raw ginger, Iriveriya and Undupiyali and mixed with a tablespoon of lime juice and bee's honey is good. Into this is dipped a red hot piece of iron. The dose is one tablespoon at a time three times a day. This should bring quick relief.

Dry ginger is the chief ingredient in the treatment of amoebiosis. Dry ginger, stems of Karapinchcha and Tamarind leaves, the rind of a raw lime are taken in equal quantities and roasted as for coffee. A tablespoon of this powder is mixed with a tablespoon of coffee powder and brewed in half a cup of boiling water. When cold, add bee's honey to sweeten. This should be taken three times a day for the best results. Tender Karapinchcha leaves finely ground into a sambol and taken with food would certainly improve the appetite while roasted leaves powdered and brewed like coffee stops vomiting due to indigestion.

Tamarind, besides improving the flavour of most curries prevents costiveness experienced after meals. At certain times of the year especially in the colder climates we experience cracked lips and sometimes sore-mouths. A good remedy for this is Katurumurunga leaves cooked in gingelly oil. In Sanskrit this leaf is called AGASTI after the great sage and master of medicine. It's also called VERNI meaning enemy of sores. It is very effective for sores and ulcers when used as plaster. Oil made with these leaves brings relief to those suffering from catarrh.

Iriveriya is another plant found in gardens. I have seen it grown successfully as an indoor plant. It is aromatic and grows easily and is used in many prescriptions for fever and diarrhoea. The book Yogasatakaya gives details of how to use Iriveriya in various stages of diarrhoea. For example, in long standing cases it is a mixture of Iriveriya and Kalanduru; if the diarrhoea is accompanied by loss of blood, the ingredients are Iriveriya, Kalanduru and unripe beli fruit. If there is a severe gripe then it has to be Iriveriya, Kalanduru, unripe beli with kelindahall. It has to be administered together as a decoction.

Dr. John Attygalle, a British qualified Doctor of Medicine who compiled the Sinhalese 'Materia Medica' in 1917 mentions in his book

that he himself has administered these decoctions in their proper order and found them most effective.

Sugar cane is another plant found in the back gardens of some homes and now grown in large plantations. There are two varieties - the yellow and the black. The black variety has a lower sugar content and a higher mineral content than the yellow. Sugar cane is considered indigenous to Sri Lanka, and is the type used in medicine. Equal quantities of the juice of sugar cane and king coconut water with a little gingelly oil is given to pregnant mothers to induce pains even now in certain rural areas. Copious quantities of sugar cane should be given to patients with chicken pox, measles and like diseases which are accompanied by high fever.

In cases of continued fever, except enteric fever, a drink made from sugar cane syrup, king coconut water and powdered Bulu seeds keeps the patient comfortable. Sugar cane is also the chief ingredient for a decoction for bleeding piles when used in combination with kooratampala and the yam of the ash plantain tree.

The ash plantain is another useful plant. Every part of it has some medicinal use. The juice extracted from the yam, the trunk and the flower is used in decoctions for bleeding piles and female disorders. The unripe fruit which is called Mochaka in Sanskrit, has astringent properties and is used in cases of dysentery and diabetes. The juice extracted from the trunk is generally the first thing given in cases of poisonous snake bites. The ripe ash plantain is a sure remedy for constipation. The stem of the fruit burnt down to ash together with slacked-lime is used in the treatment of gangrenous wounds.

An old ola manuscript gives tender ash plantains boiled in their skins as a remedy for cancer and stomach ulcers. In the United States a syrup made of plantain is said to be very effective in chronic coughs and bronchitis. Cut the fruit into slices, add an equal weight of sugar and cold water and boil the contents in a closed vessel till reduced to the consistency of a syrup. The dose is one teaspoonful every day. Incidentally, ash plantains should always be cooked in their skin to obtain the best food value.

Ash pumpkin is mainly water but it has many minerals in

solution which gives it good medical value. It has a peculiar action on the circulatory system in that it rapidly stops haemorrhage. Hence it has been found very useful in the treatment of haemorrhage from the alimentary canal.

The root of the puhul creeper with that of the komadu (which is also of the puhul family) made into a paste by rubbing them on a stone can be applied on carbuncles. For severe burns a drink of puhul juice mixed with kitul jaggery is the first thing to be given to the patient. Puhul is also applied on the burnt area of the skin. The five parts of the lime tree, the leaf, bark, root, flower and the fruit ground to a fine paste with lime juice is applied on the burnt surface of the skin.

We are told that malaria is on the increase again. Ripe papaw will keep down enlargement of the spleen. Here is a word of advice to those who regularly take alcoholic beverages. Take papaw regularly and keep your liver happy. To those affected with enlarged prostate glands there is relief to be found in half ripe papaw boiled and eaten in the morning.

HERBS AT YOUR DOORSTEP

Herbal plants and their usage are so many that one cannot limit them only to the medicine chest. Herbs have been around us from the beginning of time. Egyptian hieroglyphics show their use by the Queen of Sheba and her gift of their seeds to King Solomon.

Early records show that many of the herbs we use today were in use centuries ago as medicine, as charms, and as a means to preserve and improve the taste of food. They add a whole new dimension to cooking, bringing the flavour and aroma of foreign lands into our kitchen. Part of the fascination of herbs is the link they provide between the ancient civilizations of China, Egypt, India and Sri Lanka. It is amazing to think that the herbs we pick today, may be the same as those mentioned in the year 2000 B.C.

These herbal plants can cure many of our common ailments and many of them can be found at our door step.

Ring worm of the scalp is a common disease which leaves you worried. This is noticed as round bald patches on the scalp and they spread gradually. I have observed that some men even get this disease on the face leaving bald patches on the beard. The following remedies have been tested and found very effective.

The juice of the Oleander (kaneru) leaves is applied on the affected parts of the scalp. The easiest medicine you can get from your kitchen cupboard is a mixture of powdered black pepper, onions and salt. This mixture when briskly rubbed on the bald patches of the scalp caused by Ring worms will not only check the infection but also encourage the growth of new hair.

Worry, travelling in crowded vehicles, walking in the hot sun are the most common reasons for headaches. When your daily routine of health is in disorder you can get a headache. Herbal plants or herbal seeds can give us much relief by their correct usage.

Corriander seeds made into a paste with cold water and applied on the forehead is an easy and effective remedy. A paste of raw ginger or cloves or nutmeg with cold water gives quick relief. Raw ginger juice

mixed with cow's milk is very effective. If your headache is a neuralgic headache, a paste of ginger, cloves, cinnamon and the roots of the caster oil plant is recommended by the indigenous physician.

The paste of Nelli (*Phyllanthus Emblica*) fruit and saffron mixed with rose water also gives quick relief. A paste of betel leaf is much better than taking tablets. If your headache is due to a chill, a hot paste of cinnamon made with hot water is applied on the forehead. There are snuffs that you can prepare at home. The mixture of equal parts of very finely powdered Valmi (*Liquorice*) roots, Atividayan (*Atis* root) comes in handy. A very small pinch of this mixture will reduce the heaviness in the head and heal the headache.

Migraine : This headache comes on periodically and is confined to a particular part of the head. This is considered to be an incurable disease. According to my experience herbal plants have done wonders. As a home remedy, the moist paste of three leaves of the Holy Basil (*Tulsi*) and three black peppers used as smelling salt relieves the unbearable headache. The mixture of the powder of long pepper (*Tippili*) and the root of Vadakaha (*Acorus Calamus*) can be used as snuff.

A paste of black pepper made with the juice of Nika (*Vitex Negunda*) could be sniffed occasionally. If the headache is due to catarrh, dry nika leaves can be smoked. If you suffer from constant headaches it is advisable to sleep on a pillow made with nika leaves. A paste of the leaves applied to the temples makes you comfortable. A medicated oil prepared with nika leaves is also very effective for sinuses.

Pimples : This is a problem of youth. Mischievous fingers always squeeze out pimples. When they are pricked they remain as black heads or even leave tiny holes on the skin. Let us not meddle with them. Instead apply a paste of cummin seeds (*suduru*) over the pimples. It gives wonderful relief. A paste of nutmeg (*sadicka*) made with milk is an efficacious remedy for removing pimples on the face. A paste of red sandalwood (*rathadun*) and turmeric (*kaha*) made with milk is a useful local application.

A mixture made of one part sandalwood oil and two parts mustard oil is also a very effective application.

Prickly Heat : This is more annoying than painful as it irritates all the time. A cold water bath taken sometime after applying a watery paste of gram (kadalay) flour on the body brings relief. The powder of sandalwood used as a dust all over the body is effective in giving relief in cases of prickly heat. The paste of the pini-jambu (Big Jambu) applied over the body cleans the skin and relieves the itching. When prickly heat is severe, an infusion made overnight of 180 grains each of lightly crushed pomegranate roots, cummin seeds, corriander seeds, red rose petals and sugar is given the following morning; this drink relieves itching caused by prickly heat.

Ringworm : This skin disease leaves marks on the skin. It is very irritating and sometimes the patches are moist. It is also highly contagious. A paste of the Ehela (Cassia Fistula) is applied over the parts affected by ringworm. A paste of the roots of Aththora (Aristida Setacea) mixed with honey or a paste of the roots made with sandalwood or the seeds mixed with butter-milk is very effective. The juice of Aththora leaves mixed with butter-milk too can be used to cure this condition.

More Remedies for Ringworms : The mixture of the juice of Pani tora (Cassia tora) leaves with lemon juice or mixed with butter-milk is an effective remedy. The juice of tamarind leaves rubbed on the affected area is an easy cure. These remedies have been tested for hundreds of years and they have proved to be effective. All we need is to identify the herbs.

Very old men in the villages are often the best authorities on herbs and their curative value. Sri Lanka has an abundance of greenery, so why should we not make use of it.

BUILD YOUR OWN NATURAL PHARMACY

Study of herbal plants is not something one can master at once. Whenever there is time at one's disposal, one can set oneself the pleasant task of studying plants, one by one at a time. Then you will be well prepared to meet an emergency when it comes.

In this way, you will learn to recognize them when you see them growing wild, and you will begin to acquire an intimate knowledge of herbs. You will learn to grow them in your garden. You will not miss the right time to gather them, and you will build up for yourself that natural pharmacy which will be very useful to you.

Much patience is needed before you get the feel of the herbs and can predict the effect that a plant will have on a particular case. The plants that are all around us, e.g. garlic, onions, ferns etc., are so familiar that we cannot believe in their efficiency.

On the whole, people tend to have more faith in drugs that come from the farthest and most advanced regions, or those which cost the most money.

A good medicine is one that makes use of all the resources that nature and man's intelligence have put at our disposal. Nothing should be neglected.

The art of healing did not start in the 20th century. It has a long history, and at the same time we accept the progress of science. But to cure common ailments or in order to help in the treatment of serious illness, you can use herbs. To trust in nature does not mean that you must deprive yourself of the discoveries of modern science.

Indigenous medicine is always guided by seasonal behaviour, as it regulates the three forces in the body. We have started the hot season, and many suffer with skin eruptions and cracked skin in the soles of our feet. Some even suffer from sore mouths.

During this season we must avoid 'heaty' food and eat more cooling vegetables and those which contain a higher percentage of water.

Spinach is one such vegetable which gives energy and strength. Spinach has come to us from the Middle East. It was grown in the 11th century in Spain, and in the 15th century in France. It is rich in protein; it helps digestion and is a stimulant of all secretions of the stomach, the liver, and the pancreas.

It is also very rich in minerals.

Most people know that it contains a lot of iron, but according to scientific experiments, it also contains phosphorous iodine and many other elements essential to keep the system in good shape.

Spinach can be recommended for children, adolescents, convalescents, anaemics, and all chronic invalids. It is called "Snigdhpatra" or "Gramini" in Sanskrit and its botanical name is *Basella Alba*.

There are creepers with a red stem and a green stem. It also grows as a shrub. The shrubs are known as "Upodaki or Galodaki". All these varieties have the same type of curative value.

In Ayurvedic books it is said that spinach is cooling, suppresses the Rakta and Pitta imbalance. It is a good laxative. It helps to enrich your complexion. This herb helps to reduce the suppression of urine.

In the old texts on Ayurveda, spinach is mentioned as "Sukkra Janaka" which means that it is an aphrodisiac. Spinach is one of the basic medicines given for insomnia and insanity.

Eat more and more spinach if you need good rest in the night. Spinach leaves are bandaged on to the forehead for severe headaches. It is used as a poultice for ulcers. Niviti is a good remedy for eczema, and can be applied on the skin.

In old Ayurvedic books, it is mentioned that niviti improves eyesight. It can be used as an infant food to cure worms. It is an accepted remedy for anaemic invalids as it improves the blood circulation.

Niviti generally grows in cold and water-logged places. It also could be grown in pots as an indoor plant.

During the time of the Great Asoka, the Hindu Materia Medica contained about 700 herbs which were used by the vaidyas. They were mostly cultivated in the gardens all over the country. The time of collection, the parts used, the methods of curing, the preservation were

well known.

Since the number of drugs commonly used in those days was not very large, no elaborate descriptions were given with their identification. The student of medicine used to live with his Guru in the Gurukulas, and received practical training in connection with the identification and proper time of collection.

REVIVAL OF HERBAL REMEDIES

Plants engage in a real alchemy drawing from the soil vital nutritive substances which they store and convert into food. They are therefore a natural reservoir of precious elements.

Plants like human beings, have their own particular preferences and characteristics so we must know to look for them and learn to recognize them. This is more difficult than recognizing the people we often see.

Nature is the best gardener in the world, but with the chemical invasion of the world we must be very cautious in gathering plants.

Never gather plants that are grown on cultivated land or in orchards; they may be well poisoned and in any case they no longer remain as nature created them.

The soil that feeds them is saturated with chemical fertilizers and synthetic hormones intended to destroy weeds. They are also repeatedly subjected to a fall out of equally poisonous insecticides.

You must gather your herbal plants far away from civilization. There are still areas uncontaminated by human intrusion and waste lands, valleys and mountains to satisfy those who have a liking for herbal infusions.

The Ayurveda books such as Susruta and Charaka pay much attention to the gathering of herbs. Herbs should be gathered at the right moment.

Even the great Western herbalist Dioscorides has said that before all else, it is proper to use care both in the gathering of herbs during the correct season and in storing them.

It is according to these rules that medicines either do their work, or become quite ineffective.

The moon is the closest planet to the earth and most rapid in its motion. It has a great influence upon plants and all other living things when it waxes and wanes every month.

The curative components contained in plants vary according to the age of the plant, the time of picking, the nature of the soil and the climate. Hence the cardinal rule that must be followed by us, is that they should be gathered at the moment of full maturity.

It is best to gather herbs on a dry and sunny day. You should not start to pick them too early in the day, nor continue too late. The herbal roots must be pulled out after the rains. Even handling of herbal plants needs a certain amount of care.

You should not squeeze or crush the flowers and leaves you gather, because if they become warm or bruised they will be less effective.

Herbs are ruined mainly due to the careless way in which they are gathered. You should not remove too many leaves or branches from the same plant.

If a plant is stripped of too much bark or leaves it will die. You should refrain from taking too many roots within a limited radius as it is the mainstay of the plant.

In collecting herbs you should also have a choice of plants. The ancient Ayurvedic Acharyas have laid down that a wild plant is always better than a cultivated plant.

Choose plants that have the most fragrance, taste and colour. Also select plants which are healthy, bitter, and not attacked by pests or disease.

Storing the herbs for your use needs a lot of care. Before you store, dry the herbs in a well ventilated place. Do not expose them to the direct rays of the sun. Spread out the herbs as soon as you collect them, or else they will rot.

Never wash the plants before putting them to dry. Spread them out in a single layer. For the first few days keep turning them over so that the drying is even and thorough.

When the drying is over, cut them into small pieces, and store the herbs in a clean bottle with a lid. In the case of roots, they must be washed and cut into small pieces before drying.

Never store the herbs whether dry or fresh, in plastic bags or

wrappings.

Scientific experiments have shown that plastic wrappings bring about certain chemical alterations, and the herbs kept this way no longer have the same efficacy.

Herbal tea is very popular in the west and it is gaining good ground even in Sri Lanka.

Those who drink herbal tea must try to store their own herbs, in the manner I have explained. You could also build up your own family herbal store. When preparing herbal tea, use the purest water possible. Preferably use bee's honey to sweeten your herbal tea.

Preparing your own home remedies is another thing you should learn.

Infusion is different from decoction. Place the plants in a teapot, pour onto them a prescribed quantity of boiling water, cover and leave to infuse for the necessary length of time.

This will depend on the type of plant. This is how an infusion is prepared.

For a decoction, place the given amounts (12 kalandas) of herbs in a saucepan or a pot and pour 8 cups of cold water and boil on a slow fire to one cup; strain and use as prescribed.

Decoctions should not be kept for too long a period. One cup of decoction should be finished in one day or in one and a half days.

Maceration - softening by soaking. Put the prescribed amounts of herbs into the given quantity of liquid: leave to soak for the specified length of time, strain through a clean cloth, squeeze all the juice out of the plants.

The most important thing when preparing an infusion or decoction is to remember to respect the prescribed amounts in use, and not make your medicines on assumptions. If so, it would not do any good, but certainly does no harm. Herbs never cause the havoc that certain drugs do.

Herbal plants can provide a flexible and effective form of medical therapy, totally without dangerous side-effect and adaptable to the needs of each individual patient.

The indigenous physician is thus able to prescribe a personal course of treatment that is appreciated a great deal by the patient, who feels he is being treated as an individual and not like every one else.

There is a revival of interest in herbal treatment in Sri Lanka, and it is going through its second infancy.

In the West the study of herbs goes as far back as the reign of Nero. Dioscorides, a naturalist lived in the 2nd century A.D., and served in the armies of Nero.

His 'De Materia Medica' was the leading text book on pharmacology for 16 countries and deals with the properties of 600 plants.

He was also known as 'Prince of Herbalists'.

Another was John Parkinson (1567-1650), an apothecary and a herbalist. He was apothecary to King James I.

The knowledge we now possess of the beneficial effects of medicinal herbs is very little, and this could be one reason why confidence in herbal medicine has grown less.

The study of natural bodies drawn from the plant kingdom is the key to health. There was a time when our grandmothers used no other remedies for the ailments that can affect a family.

When any one suffered from indigestion, colds, headaches, rashes, etc. they would draw out the precious secrets of their green guide to health. Let us re-discover these secrets.

WHAT HEALING PLANTS CAN DO

Early man believed that the Creator had put a sign indicating the use of plants—some for food, others for their curative value. A red resin for example meant that the plant was good for the blood. A heart shaped leaf signalled its cardiac properties, a liver shaped leaf was a sign of efficacy against Jaundice.

Man probably put most plants into his mouth. Many were harmless; a few nourished him and a number relieved him from discomfort or sickness. The modern concept of healing plants began in Europe with the appearance of herbals in the Sixteenth Century. Healing plants act in a variety of ways. Many (e.g. Carminatives) exert a soothing action. A large number act on the nervous system. Others have muscular activity. In herbal plants there are variable benefits.

Plants like cannabis have been valued from the earliest times for their powerful psychoactive and physical effects. Cannabis contains many healing properties. It is a very important plant used specially in many kinds of Guli (Pills) in indigenous medicine. It was used as a sacred plant for ceremonial use. It was known in India and China as early as 1500 B.C. or even before. At present it is classified as a narcotic.

The curative value of most beneficial plants and their healing art has been handed down from generation to generation. These herbs still have a useful place in coping with many ailments. As home remedies, this is particularly true in the case of minor ailments such as indigestion, coughs and pains. Nature has many remedies for our ailments and they have been tested over the years.

Herbs still claim our attention as natural remedies. The efficaciousness of herbs in fevers is something very important.

In treating fever there is a strict method in indigenous practice. Fasting is advised at the beginning of fever and at the second stage canjee water should be given. At the third stage medicine is administered, and on recovery a laxative must be given. This method differs with children. Instead of fasting, children are given only a liquid diet.

The laxative at recovery is also given according to the age of the child.

Canjee water or rice boiled in water is very good medicine for fever. For children of one or two months of age water in which rice is boiled could be fed at intervals. In the ancient days canjee water was drunk instead of bed-tea. In the decoction administered for fever, Margosa is a herb frequently used. If you take Margosa (Kohomba) daily or at least twice a week you will be healthy. The following is a list of medicines taken in decoction form for fever.

Decoction

Take Margosa bark, Corriander, Dummalla (*Vatica obscura*), Rasakinda (*Tinospora Cordifolia*), Aralu (*Terminalia Chebula*), Bulu (*Terminalia Belerica*) and Nelli (*Phyllanthus embilica*).

Equal parts are boiled into a decoction in the usual way. Dosage: Half a tea cup twice a day. This decoction is for adults only.

The following decoction is for infants. Take Patpadagam (*Aporosa-cardiosperma*), Ginger, Corriander and Veniwelgeta or Bangeta (*Cosinium Femestratum*).

Equal quantities of two kalandas must be boiled in six cups of water; simmer down to half a cup. Dosage: Three teaspoonful to be administered morning and evening.

The following decoction is for fever in older children (8 to 15 years). Take Patpadagam (*Aporosa cardiosperma*), Kalanduru (*Cyperus Rotandua*), Rasakinda (*Tinospora Cordifolia*), Binkohomba (*Munronia Pumila*) and Ginger.

Equal quantities of 2 1/2 kalandas must be boiled into a decoction (eight cups of water boiled down to one cup). If the fever is not cured by these remedies a physician's advice must be sought.

When we speak of home remedies I feel that it is best to know how to prepare the herbal medicine.

How to Prepare a Decoction

When boiling the decoction the vessel must not be covered. It must always be over a low fire. The liquid must be strained and never

kept in the same vessel, with the boiled herbs. The strained liquid could be sweetened with bee's honey. It is always best to use bee's honey because by itself it is a medicine. Adding bee's honey to the medicine must be done when the liquid is slightly warm. It is not advisable to drink the decoction before meals as it would dilute the gastric juice and interfere with digestion, unless it is specially advised by the physician.

HOME REMEDIES CAN BE EFFECTIVE

During the hot season eye diseases are common. The remedy is simple. Firstly, wash the eyes with king coconut water every morning and evening. If you have very red eyes which you find difficult to keep open and if they tear, there is a reason for it.

During the hot season, due to the intake of heaty food you get very small pimples—like blisters inside the eyes at the corner or on the eye lid, both upper and lower. For this there is a very effective and easy remedy. Take a Gallnut (Aralu), clean it and wash it. Then give a small tap to it and smash it. When the rice is boiling put the gallnut into the pot. When the rice is cooked take the gallnut and remove the seed inside. Put the rest into a fine clean piece of cloth and squeeze the juice into the eye.

Turn the eyeball and let the juice get in. Every morning and evening sore eyes must be washed with king coconut water. When the eyes become irritating and swollen it is good to ferment with delum (pomegranate) leaves and saman pichcha leaves boiled in water.

Delum is very often used in indigenous medicine. The rind of the fruit is dried and powdered like coffee. Two tablespoonful can be taken thrice a day for dysentery. For any chronic bowel complaint the following medicine is very effective : One ounce each of delum rind, corriander, cummin seed, walangasal, thippili and quarter ounce of pepper and dry ginger. Powder all ingredients together.

Dosage : Two tablespoons of this powder poured like coffee in half cup of hot water. Mix one tablespoon of bee's honey and drink thrice a day. The bark of the root of the Delum tree is considered a specific cure for tapeworms. It is given in decoction form : 2 ounces of the root bark is boiled in one and a half pint of water and is reduced to 3/4 pint.

Delum is very effective in cases of bleeding piles. Take one cup full of the juice of the green fruit. Mix together aralu, cloves and dry ginger and powder it. Take one teaspoonful of this powder and mix it

in the delum juice and drink every morning.

Nelli is found in plenty these days as it is the season. We see basketfuls of nelli sold cheap on the pavements. Very few people stop to buy these fruits. It is one of the most important medicines in indigenous treatment. There is hardly any disease for which it is not used, singly or in combination with other herbs. It has a specific effect on the eyes and is given to strengthen the retina or for weak or defective sight.

Soak the dried Nelli overnight and extract the juice. Take it with sugar candy to taste every morning on an empty stomach or the last thing at night. It is a good laxative for constipation. Nelli leaves boiled are very effective for skin eruptions. For eczema Nelli leaves ground and used as a plaster gives quick relief to the unbearable burning sensation. It also dries the weeping wounds.

Two tablespoonsful of Nelli mixed with one tablespoonful of bee's honey taken regularly every morning helps to reduce the bleeding of piles. Nelli will also give you a good complexion. Nelli must be eaten raw. If you drink half a cup of nelli twice a week, it helps to keep bowel movements in order.

Nelli is very cooling. Therefore while nelli is eaten or drunk any other cooling food or drink should not be taken on the same day. Frequent use of nelli is not good for catarrh patients; but is very good for eczema and rheumatic patients. Also for patients suffering from haemorrhoids. Application of nelli leaves as a plaster on haemorrhoid glands helps to reduce the burning sensation.

There are many children suffering from coughs and colds. We are used to giving them antibiotics. This helps to reduce the cough and cold but the remedy is too quick and the cause remains. As a result coughs and colds recur over and over again. Parents have no patience so they go in for more and more antibiotics or come to the conclusion that these children are allergic to some pollen or domestic animals like cats and dogs.

But let us try a home remedy. Take equal parts of Elabatu, Tibbatu, Katuwalbatu, Babila, Adathoda and Muddarappalam (Weigh in Kalandas approximately one ounce). Prepare a decoction with 8 cups

of water boiled down to one cup on a slow fire. Use 1/3 of a tea cup for a dose twice a day. Take 2 1/2 Kalandas of Aratta, Adathoda, Bebila, Katuwal battu, Weltibbatu and boil in 8 cups of water down to one cup. Half a cup taken for a dose twice a day is very effective for fever with a cough.

When having a cough and cold dry ginger should not be used. It is better always to use raw ginger. Any kind of cold drink, ice cream etc., should be avoided. Plenty of Gotukola, red onions should be taken with your food. Spring onions or lunugas in salad form or plain with food is health giving food for such children. Every morning a teaspoonful of Gotukola juice with bee's honey is a good cure for catarrh.

HERBS ALL THE YEAR ROUND

A great deal of the interest in growing herbs lies in the widely varied uses to which they can be put. Herbs are attractive to look at, useful in cooking, beneficial to health and in many cases have a fragrant aroma. When grown outside the home their flowers attract bees and birds to our gardens. The fact that over 100 herbs are used in the distillation of the liqueur Chartreuse will certainly commend them to those who enjoy after dinner liqueurs. Added to this is the fact that with little care, herbs can be grown as indoor potted plants all the year round.

Apart from their practical use many herbs have beautiful flowers of many hues. If many of the herbs with attractive flowers and variegated foliage were offered as house plants in the florists shops it would promote many herbal farms in homes.

A great deal of curiosity is evinced these days in the West about herbs and spices that have medicinal value. Many of these herbs and spices are often preferred to allopathic medicines. John Gerard who was a herbalist in the 16th century knew the great value of Tulsi or *Ocimum basilicum*. A pot of Basil in the kitchen window is said to discourage flies.

Several spices are used as herbal medicines and have been administered as aphrodisiacs. Corriander plants are one of them. They are known as an erotic stimulant. A strong decoction of the corriander plant is given with milk and sugar for the cure of bleeding piles and a decoction of corriander seeds is given for flatulence and colic. An oil is distilled from the seeds. It is rather volatile and is given in doses of 1 to 4 tablespoons for rheumatism and neuralgia.

A poultice of the seeds is applied to chronic ulcers and carbuncles. A watery paste is used as a gargle for the cure of ulceration of the mouth and throat.

Asomodagam or *Trachyspermum Ammi spragues* or Omum is a seed rich in thymol; it is carminative, a stimulant and an anti-spasmodic. It is given for flatulence, colic, diarrhoea, hysteria and

spasmodic disorders. The seeds are eaten with betel leaves. A teaspoonful of the seeds with a little rock salt boiled in hot water is a household remedy for indigestion. The infusion of the seeds is an efficacious drink for sore throat and habitual drunkenness. A hot dry fermentation with the seeds is a home remedy for asthma. Omum water is administered to infants who vomit and purge. The volatile oil is used locally for relief of rheumatic and neuralgic pains.

Asafoetida is a gum exuded from the taproot of the *Ferula* herb which grows in Kashmir. In Sanskrit it is called Hingu, in Sinhalese Perumkayam. It is also imported from Iran and Afghanistan. Asafoetida though acrid and bitter in taste is extensively used for flavouring curries and pickles. It is a carminative and a stimulant which helps digestion; it also acts as a sedative and a diuretic. It is commonly used in indigenous medicine for dyspepsia, flatulence, colic and diseases of the nervous system. It is also an ingredient in several medicinal oils.

Asafoetida gives relief in cases of asthma, hysteria, whooping cough. In spasmodic disorders of the bowels it is used as a suppository in constipation, or for lack of tension or muscular power of the bowel and also in partial paralysis. Recent studies have shown that it has more sedative properties and is used in diseases of the heart. In Sri Lanka in ancient times it was used as a disinfectant and was tied on the hand specially of infants.

There is a famous Ayurvedic Churna named "Hingusgrashtaka" This is composed of Asafoetida, ginger, long pepper, omum or asamodagam, cummin seeds and rock salt. Take equal parts, reduce to powder and mix well. Dose : 20 grams to be taken with the first mouthful of rice with butter at breakfast. This is administered to produce an appetite and increase the digestive powers and cure fatulence. It may be taken with lime juice in the form of a pill.

Parsley has been accepted not only as a spice but also as a medicinal herb. It is prized as a herb which enhances virility. Parsley seeds are also said to be a cure for baldness.

Vatsyayana in his "Kamasutra" has given a number of recipes for preparing aphrodisiacs. The ingredients for which are mostly spices and different types of herbs.

In a recent daily paper it was said that science is looking to nature for a new approach for healing diseases with the aid of active principals in plants. This is certainly encouraging news.

The health specialists from all over the world have agreed to establish a list of reliable, inexpensive and widely available herbal drugs. The World Health Organisation (WHO) has explained in general that the scheme offers a potential solution to many urgent health problems.

It is our greatest advantage that these specialists trust medicines other than quinine, cocaine, mescaline and curare. Valuable medicine can be obtained from herbs which are yet to be discovered. These specialists assert that herbal plants can cure diseases like diarrhoea, hypertension and even certain forms of diabetes with the aid of medicinal plants. Now scientific research organisations have sprung up specially for the study of plants used in traditional medicine.

Sri Lanka is a store house of traditional medicine and we can give assistance to these researchers as much as the Government of Brazil and Guyana have given. Our medical research institute too can participate in this scientific research work on herbs, where the experience and knowledge of the traditional physicians are also obtained.

SIMPLE HERBS WITH MANY USES

A large part of the population of our country live in rural areas and the majority of them are poor and have no access to the health services.

Health cannot be imposed upon a person; it has to be won in partnership. Our aim should be to bring the health services and the community together to ensure health care to the largest number at a minimum cost.

Low cost health services should be matched with simple but effective technology.

Health care in the village can still be based on the ancient methods. The primary practitioners of traditional medicine should be supported by the community.

The people still have more confidence in the practitioner of traditional medicine. In the village its importance is in the community's involvement, support and co-operation.

If we look closely we see that the sick in the villages have been helped by their neighbours. Wise men and women are generally asked by the sick for advice. Herbs have been collected and used. In this manner before the advent of modern medicine folk medicine and an indigenous health system flourished.

Even now traditional medicine has a strong hold in many countries and is accepted by the community. One has to appreciate also that folk and traditional medicine have contributed a great deal to the development of modern medicine.

The advantage of traditional medicine is that it is used according to seasonal conditions and the constitutional state of the sick.

When it is the hot season we can get plenty of cooling herbs both as food and as medicine at our doorstep.

In the market and in our gardens we find plenty of 'Penela Wel'. It is a cheap kind of green leaf known to almost every one. In Sanskrit

it is called 'Jyotishmati' or 'Parawitapadi', which means pigeon's foot. The botanical term is *Cardiospermum Halicacabum*.

It is an annual herb which is very common in the low-country and throughout the tropics. It is a small delicate, wiry, smooth, climber. Its leaves are alternate and the leaflets are coarsely toothed. The lowest pair of flower stalks are converted into spiral tendrils and the seeds are in three tangled capsules.

It was very largely used by the Sinhalese settlers to allay pains due to sprains and contusions about the joints. The roots and the leaves are commonly used in medicine.

A decoction of the Wel-penela roots is given in half table-spoonful doses twice a day for bleeding piles. The leaves are used for rheumatism, nervous diseases, haemorrhoids and chronic bronchitis. The juice of the leaves is put into the ear for ear-ache.

The leaves are used as one of the ingredients in a medicine recommended in the medical book 'Bhavaprakasha' for the abnormal suppression of menses.

Equal parts of Wel-penela leaves, Sahinda-lunu (Potassium carbonate), the root bark of Hin-kumbuk (*Terminalia Arjuna*), Vadamaha (*Acorus Calamus*) are pounded and made into a paste with milk.

This is administered once or twice a day. Dosage : one teaspoonful each time.

Wel-penela is a cooling drink when prepared as a canjee. You prepare it just like gotukola kenda. It can be taken in the morning as a drink for breakfast.

The external uses of Wel-penela : The leaves are applied as a poultice for skin eruptions. They are coated with castor oil and are applied on swellings and tumours.

A paste of the leaves is a dressing for sores and wounds. The leaves are prepared into mallum, and used externally for Hydrocele.

Some of the English names for Wel-penela are Baloonvine, Black-Liquorice and Heart-seed.

The crushed leaves are inhaled to relieve headache. The seeds are used as a tonic in fever, and rheumatism.

Wel-penela is used in preparing an oil for infants when they find it difficult to breathe through the nose. Few people know about this.

Common herbs like Wel-penela have not been catalogued in Sri Lanka, but more than 5,000 varieties of medicinal herbs have been catalogued in China. Most of these have been found to be more effective than Western drugs.

THE USE OF MEDICINAL HERBS

The word medicinal herbs often leads us to think of some miraculous and supernatural cure. Our ancient literature has references not only to plants reputed to cure difficult and incurable diseases, but also to plants possessing many magical properties. For example, we read that a certain root chewed increases longevity or that a few drops of juice put in the mouth of a dying patient revives him.

In ancient times a medicine prescribed by a hermit earned more favour and became more famous than the one based on some test or experience. As times passed, and man started doing everything on the basis of reasoning several of the earlier beliefs seemed unsound and it happened that the use of medicinal herbs declined.

Today, the importance and efficiency of medicinal herbs is the subject of discussion, both in the developed and developing countries.

In New York a general practitioner, Dr. Robert Giller says "We are learning that chemical pollution of foods and the environment may contribute to cancer, and this has been one of the factors responsible for a return to more therapies rather than loading up on synthetic chemicals, for minor aches and pains."

Most of the traditional physicians run their dispensaries in their homes and the medicines are prepared by the physicians themselves. The therapeutic scope of Ayurveda is very wide. It follows the classified pattern of taking into consideration the history of the patient which is very important for the diagnosis of the disease.

In Ayurveda the environmental factors are considered as a main cause of the imbalance of the three doshas. The "Tridosas" being the very soul of Ayurveda, all theories and principles are built around and based upon them.

Thus the early morning hours are what are known as Watakala. The year is divided into six seasons. Food, clothing, and the mode of living during these seasons are clearly shown. Ayurveda Acharyas

insist on psychi-health and mental purification, and with the practical guidance they give for the conduct of daily life, such rules would make people healthy in body and mind. The importance of attending to nature's calls like hunger, thirst, defaecation, sleep etc., are taught clearly.

More than any other medical "pathy" Ayurveda has paid attention to this vital aspect of physiology. The therapeutic scope of Ayurveda helps to offer an appropriate rehabilitative measure to achieve equilibrium in the whole being. The prescriptions and hereditary formulae are composed of local herbs.

The physician is equally concerned with health problems, both physical and mental. The unique method of Ayurvedic treatment is that it treats the whole person, while Western medicine treats only the disease.

Herbal tea has become more popular in Western countries than in Sri Lanka. They have started to relieve their sore throats by gargling with simple herbal mixtures, their headaches, colds or flu by drinking pots of spicy herbal tea. In these countries you can purchase aromatic herbal tea-bags. Its preparation is quite easy.

In Sri Lanka we can get enough herbs to use as tea. To make herbal tea from loose herbs, use a heavy weight tea pot (not aluminium) and boiling water. Add one teaspoon of dried herbs or one tablespoon of fresh herbs to one cup of water.

Put the herbs into a stainless steel tea pot, and steam in the boiling water for about three minutes, covered to preserve the aroma. Serve with a slice of fresh lemon or lime or a spoonful of honey.

Yogi Tea

It is taken for colds and congestion of the lungs and to improve circulation. Many of the larger health food stores in the West stock this blend. The following ingredients when mixed with a quart of boiling water makes Yogi tea:

- 1 tablespoon corriander seed
- 8 cardamoms

- 1/2 inch long stick of cinnamon
- 8 cloves
- 5 black pepper corns
- 1 inch fresh ginger (pound slightly)
- 1/4 teaspoon any standard black tea (optional)
- 1/4 cup milk (optional)

Boil herbal ingredients for 10 to 12 minutes, then add black tea for colour and simmer for an additional 3 minutes. Mix in milk and sweeten with honey.

Though milk is mentioned here, generally the true Yogi tea never includes milk or cream because it clouds the brew and dulls the aroma.

MEDICINAL VALUE OF GINGER

The effectiveness of Ginger in our indigenous medical system and our remedies has been proved often.

Though the Sanskrit name of Ginger is "SINGARA", it has been commonly called "MAHAUSHADHA" by early Sanskrit writers. The raw ginger is called "ARDRAKA" and by 20 other epithets while dry ginger is called "SUNTI" and by 24 other epithets. The Dravya Guna Niganduwa, the encyclopaedia of tropical plants and drugs used in Ayurvedic medicine describes it as an ingredient in medicine for constipation, nausea, asthma, colic, palpitation of the heart, tympanitis etc. It also warns patients who suffer from skin diseases, anaemia, kidney infection and high fever against using ginger.

A very efficacious medicine for acute colic, diarrhoea followed by vomiting is the substance obtained by crushing together ginger, garlic and a piece of the bark from the "Drumstick" tree (Murunga pothu) with a small quantity of Buddha Raja Kalke. Sometimes diarrhoea and vomiting makes the patient catch a chill and feel faint.

A home remedy at such a time is rubbing crushed ginger on the palms and soles of the feet and also tying a little of it on the two big toes. Another remedy for this condition is : Corriander, ginger, iriveriya, kalanduru and beli root (3 kalan or 1 1/2 oz. of each) boiled down in 8 cups of water to one cup and administered twice a day. Yet another remedy which is also effective for amaebiosis is ginger, kalanduru, atividayan and kelindasal in equal quantities roasted and made into a powder and poured like coffee. This is a safe medicine even for infants with diarrhoea when given in small doses of 2-4 teaspoonfuls at a time.

Today there are many cases of fever and with its first sign we rush to the dispensary or the hospital without paying any heed to our local simple remedies. Take 3 kalans (1 1/2 oz.) of each of the following : ginger, katuwalbatu, batumul and dewadara and 8 cups of water. Boil down to one cup and take twice daily.

Some people may think it is cumbersome preparing a decoc-

tion; ingredients are still obtainable in many shops even within the city. Boiling it is the same as making a soup; there is nothing special about it. What you have to do is boil down the 8 cups of water to one cup preferably on a slow fire.

INDIGESTION — A COMMON AILMENT

Indigestion is another common ailment in our country. It is commonest in children. According to Ayurveda indigestion in children is divided into two categories. Indigestion in infants, children not weaned, and indigestion in children who are weaned. The medicine and method of treatment also differs. Infants who are bottle fed suffer from indigestion more often than those who are breast fed.

The ancient post natal care helped the mother's health and produced enough milk for the baby. The bath given with five kinds of herbal leaves, the fermentation of the breasts and the spine with these boiled leaves helped to preserve the mother's health. The "Tambun Hodda" or the "Kayam Hodda" helped the mother region a healthy womb. The lactating mothers were careful in the selection of food they ate so that no stomach disorders occurred. If the mother has irregular bowel movements, the baby generally contracts it. So, when treating such babies we already consider the mother's health too.

The symptoms of indigestion in infants are often that the stools are of a mixture of water and loose stools. At times they pass mucus. Sometimes even a trace of blood. Infants at times strain even when passing mucus. The stools are usually strong smelling and they also appear green in colour.

The Remedies

At the start when the infant's stool are loose the following can be administered:

(1) Karapincha stems, Venivelgata, Asamodagam, Walangasal. Take (1/4 oz. of each) and boil with four teacupfuls of water. Boil it down to half a cup. Strain and give thrice a day. Dosage: two Table spoonfuls.

(2) Take Cloves, Asamodagam, dry ginger and Walangasal (1/4 oz. of each) and roast and powder. Dosage: 1 teaspoonful in 1/4 cup

boiled water. Strain and give one teaspoon with 1-4 teaspoon bee's honey.

(3) About 1/2 oz. of Asamodagam slightly roasted and poured like coffee could be given. The dosage is 1 teaspoonful with 1/4 teaspoon of bee's honey.

The second stage of children's diarrhoea is when children are about one year old.

(1) Take Garlic, Sadhikka, Iriweriya, Asamodagam, Gotukola and raw ginger in equal quantities of 1 oz. Pound them together and steam them. Squeeze the juice and administer three tablespoonfuls at a time, twice a day.

(2) Gotukola stems, Walangasal, dry Ginger, Garlic, Kalanduruuala, Elabatumul in equal quantities of 1 oz. should be boiled and simmered in six cups of water bringing it down to 1/2 a cup. The dosage to be given is three tablespoonfuls at a time, twice a day.

(3) If the diarrhoea is not very strong, Gotukola and Kalanduruuala in equal quantities of two ozs. should be pounded together and the juice (two tablespoonfuls) with one teaspoonful of bee's honey should be given twice a day. This is very effective.

If the child vomits give him or her one teaspoonful of lime juice, one teaspoonful of bee's honey and one teaspoonful ginger juice. Mix all together and administer twice a day.

The food is as important as these medicines. The infant's milk if it is not breast fed must be diluted or stopped altogether and parboiled rice roasted (Badihal) prepared in canjee form (very thin water), could be given as a feed. Sometimes arrowroot powder in canjee form could be given.

If the infant is breast fed there is no problem. The mother must be careful to avoid indigestion. Children who are weaned must stop solids until the diarrhoea is reduced. Instead, a light diet of rusks with beef bone soup, strong tea, rice canjee water could be given.

It was interesting to read the article written by Dr. W.R.C. Paul a few days ago in the 'Daily News' on longevity versus senility. He agrees that herbs in Ayurvedic medicine contain antibiotics and rejuve-

nating effects on the body and amongst them Gotukola, Garlic, onions and bee's honey are the commonest.

These are very effective medicines in native treatment for this kind of condition. These medicines or decoctions have been administered for many years and have been passed down from father to son for several generations.

ONIONS : CURE FOR MANY AILMENTS

Today, the price of onions has shot up. Housewives are worried because curries are not complete without onions. Onions are popular because they add taste to our food. Onions have highly curative values which are known only to a few people.

The botanical name for it is *Allium Rubrum*. In Sanskrit, Red Onions are known as 'Plapandu' and Bombay-onions or Allum-Sepa is known as 'Bukhadusana' (giving a bad smell in the mouth).

They grow freely in the dry regions of Sri Lanka. Their origin is believed to be from Egypt. The onion is a tonic, a diuretic, vermifuge (expels worms from the body), emollient (having a softening and soothing effect) and an antiseptic.

It has been held in high esteem through the ages. Its uses are many. It has been useful during epidemics of plague and cholera. It has been praised as an aphrodisiac.

The Egyptians have a traditional onion soup after a night's revels, as the custom in some regions.

They have the practice of taking onion soup to a young couple after their wedding night.

It has been considered a contributing factor in longevity.

The Bulgarians are known as great eaters of onions and it is believed that they have a good record as centenarians. It has been said that onions help colour the hair, and foster hair-growth.

It has been recommended in old Ayurveda texts for obesity. Those who were fat were advised to eat raw onions.

Onions give the best of results when eaten raw, for cooking partially destroys their active properties contained in a highly volatile oil. Their raw juice is an irritant, but onions should be eaten raw as often as possible, in salads or added (chopped finely) to soups and vegetables.

They are an incomparable aid to health.

(1) Take four medium size onions, sliced. Pour one cup of hot water, leave to macerate for two or three hours. Strain and drink two or three times a day, before meals.

(2) Grate one or two onions as finely as possible. Mix together with a spoonful of bee's honey, and take two to three times a day. In the West this same preparation is taken in a glass of wine.

There is another preparation of onions known among ancient physicians for certain complaints.

Macerate 100 grams of finely chopped onions in a litre of pure coconut arrack for 48 hours; press and strain through a fine cloth, and drink two tablespoonful in the mornings on an empty stomach, for eight or ten consecutive days preferably when the moon is on the wane or at the time of the new moon.

This remedy is effective for anaemia, exhaustion, bronchial complaints, flatulence, dropsy, urinary infections, arthritis, rheumatism, diabetes and gravel retention in urine. It lowers the blood-sugar level.

Onions form a useful remedy for coughs and bronchitis. They can be taken as a decoction. Cut 3-6 onions, put into a pint of water, boil for 5-10 minutes, strain and sweeten with honey. Drink 5-6 times a day, 3 tablespoonsful at a time.

They can also be prepared as a syrup. Boil quarter pound of chopped onions in half a bottle of water for 5-10 minutes, strain, add 10 tablespoons of sugar and boil gently until it is of a thick syrup consistency. Dose : 2-6 teaspoonsful per day.

Hoarseness in the throat is cured by eating onions baked in hot ashes and mixed with ghee or butter.

For those afflicted with bleeding or non-bleeding haemorrhoids, eating raw onions either daily with their food or chopped onions mixed with ghee or sugar is most helpful.

Raw onions eaten with food helps to relieve constipation.

Onions for catarrh are very effective. The following decoction can be made easily :

Take Red Onions, Pitawakka (*Phyllanthus debilis*), Gotukola and Hingurupiyali (*Globba bulbifera*), 3 kalandas each.

Boil altogether in 3 cups of water and simmer down to one cup.
Dose : a quarter cup taken at a time, three times a day.

Onions act as an effective aphrodisiac. Steam a few onions, squeeze and extract the juice (1/2 cup), add 2 tablespoons of ghee. Drink daily on an empty stomach.

Eating red onions helps to correct menstrual disorders. Remember to eat raw onions a few days before your menstrual period.

Red onions also form an efficacious sleeping drug. Eat raw onions with your dinner. They bring you sound sleep.

In the absence of smelling salts a crushed onion held to the nose will have the same effect during a fainting fit.

There are also some external uses of onions. Grated raw onions applied as a poultice, form a prescribed remedy for arthritic and rheumatic pains, burns and migraine.

Place them on the forehead.

In retention of urine, place the poultice on the lower abdomen.

Onions are efficacious in removing freckles. Crushed onions in vinegar should be applied daily on the face. They are specially effective for a fangi skin (Aluhan).

Heat the onion juice and induce a few drops into the ear, for ear-ache or buzzing in the ear.

This juice would also soothe an acute toothache.

Onions baked in hot ashes or in an oven and reduced to an ointment, mixed with ghee, and applied very hot on abscesses helps to bring abscesses or boils to a head more quickly and relieve the pain.

The application must be renewed every hour.

Onions form an effective antidote for bee stings and as an aid for serpent bites. Crush the onions and rub briskly on the affected spot.

Onions have several household uses too. Cut in half, and use for cleaning windows and knife blades. They restore brilliance to patent-leather belts and handbags.

Crushed onions with a little damp earth are excellent to clean brass-ware.

Finally to get rid of the onion smell from the breath drink a cup of milk after rinsing the mouth well with cold water.

GROW A "KARAPINCHA" TREE

Protrusion of the intestine in children occurs only in children who are weaned. This is due to indigestion which is not cured completely. The children defaecate frequently with mucus and sometimes with a trace of blood. They strain so much, the protrusion begins. Parents think that the child is suffering from piles whereas this condition is caused by an acute state of amoebiosis or Grahaniya.

The child gets very thirsty. He or she develops a large appetite and wants to eat frequently. These children must be treated quickly before it becomes chronic. Children complain of acute stomach aches. I have seen such children defaecate in insect. It is a brown coloured beetle. This disease is known as Kurumini Mandama.

About five or six years ago I was at Kaltota, then a backward village on the banks of the Walawe. One of the villagers was collecting some herbs (kokmota) in the marshy land. I asked him why he was collecting these herbs. He said that his child was suffering from Mandama (Coeliac disease). I was very anxious to see the child and he brought the child to me. When I examined him I knew he was suffering from Kurumini Mandama. He had acute pains and he passed blood and mucus with his stools.

I prepared a medicine which was known as the Dehigediya Beheta. To the father's surprise the child defaecated almost all the beetles that were in his intestines. This medicine was administered seven times and on the seventh day the swollen stomach was back to normal. The beetles that came out flew away and were seen by others who witnessed this incident.

The prescription was as follows: Take raw ginger, raw Wadakaha (*Acorus calamus*), kitchen salt in equal quantities of two kalandas each. Grind together with lime juice and wrap in a plantain leaf and heat under warm coals. After about 45 minutes squeeze out the medicine and strain. To this juice add one teaspoonful of lime juice and one teaspoonful of bee's honey. This is very efficacious remedy for acute pains and

diarrhoea. These are very effective medicines for this kind of disease. The correct diagnosis is what is required. Traditional indigenous treatment is well stocked with such simple remedies.

If you grow a Karapincha tree (*Murraya koengli*) in your garden it is like having a doctor at home. The five parts of this tree (the leaves, roots, bark, the stalk and flowers) boiled or powdered together answer any type of stomach disorder. We can use the Karapincha stems in canjee form for any kind of dysentery.

Our second step is worm treatment. We are so accustomed to worming children that some parents think that children should be wormed regularly. But it is better to first learn about worm diseases in children. This disease can start from the age of six months. Children drink more water when they have worms. They are restless and most of the time they sleep on their bellies. Some children develop a cough and a persistent cold. They even get skin eruptions. Children who suffer from worms have bad breath. The milk teeth of such children decay easily. The remedy for worms is as follows:

Green herbs are not that easy to obtain in Colombo city, but for those who live in the suburbs it is easy to find Kumburu wel (*Caesalpinia bonduce*). Equal quantities of the tender leaves of this creeper, the tender leaves of the lime tree, raw ginger and garlic must be powdered and steamed. The juice is then extracted and one teaspoonful of bee's honey and lime juice added. Dosage : Two tablespoons daily on an empty stomach. For those who live in the city, Walangasal powdered and poured like coffee with bees' honey could be taken on an empty stomach daily. Dosage : Two tablespoons of Walangasal water, one teaspoonful bees' honey.

Cloves, Asamodagam (*Trachyspermum roxburghianum*), and Walangasal in equal quantities powdered and poured like coffee powder can be given to children daily morning and evening. The Dosage : Two tablespoons of this liquid with one teaspoon of bees' honey.

Garlic, Gotukola, Walangasal (equal quantities boiled into a decoction) can be given twice a day to increase appetite and settle worm troubles. Dosage: three tablespoonsful with a teaspoon of bees' honey. This could be given twice a week.

Skin diseases of such children must not be treated as eczema. Application of gingelly oil is sufficient. Fermenting can be done with herbal leaves like Rasakinda (*Tinespora cordifolia*), Nelli (*Phyllanthus embelica*), Kohomba (*margosa*). Boil these leaves and ferment the infected area. Colds and coughs of such children should also be treated in a different way. The treatment must be mostly for worms. The Garlic-Gotukola decoction I referred to earlier is the best. Paint the throat with gingelly oil.

Worming of children is not necessary. We give a few garlic bulbs roasted and mixed with bees' honey daily either morning or evening. In ancient times children grew so strong and healthy with no worming but they were given Batakirilla (*Erythroxylum moonii*), Aggala or this garlic preparation daily, the first thing in the morning. Worming children can become habitual and it weakens the system. Natural food like Gotukola and Erabadu dalu (*Erythrina variegata*) and elabatu curry (*Solamum xanthocarpum*) is a much better remedy.

CURATIVE VALUE IN ROADSIDE TREES

Murutha

It is a pleasure to read that the Director of Highways has called for tenders for the planting of flowering and shady trees along the sidewalks and the centre divider of the Maligawatta Development Scheme.

He has given the names of several kinds of trees that should be selected. Among them, I was happy to see the names of valuable herbal trees.

Those who undertake to plant these trees may not know their herbal value, but the public's interest in growing these trees would be enhanced if their medicinal value is known.

In one of my previous articles, I dealt with Esala or Cassia fistula. Its curative value is not unknown to the common man, but the value of Murutha or "Queen's Flower" and Diyamidella is worth knowing.

Murutha or Queen's Flower is known in Sanskrit as "Hayakarni" or "Digapatra". It is called 'Pride of India' in English. Its botanical name is *Lagerstroemia speciosa*.

A fairly large tree, with spreading branches and pale, rather smooth bark, it is rather common in the moist low country of Sri Lanka up to an elevation of 2,000 feet. It is also found in India, Malaysia and China. It is beautiful when in full flower.

The flowers are rose coloured or mauve, sometimes magenta pink and arranged in very large erect terminal panicles. The wood is one of the important timbers, probably second only to teak.

It is largely used in construction and for a variety of purposes like planking, piling, bridges, railway carriages, motor lorry bodies, rice pounders, cart naves, water tanks, leather cutting blocks, boot lasts, match boxes etc.

This handsome tree is fairly common near rivers and streams.

There are some trees which have white flowers. In the book "The Vegetable Products of Ceylon", written by Frederic Lewis, F.L.S., published in 1934, it is mentioned that he had seen the white flowered trees on the banks of the Kelani River near Kitulgala. Unfortunately this is rare now due to the cutting down of trees.

Murutha is used in indigenous medicine together with other herbs for various diseases. The root is astringent and used as a remedy for thrush. The bark and leaves are purgative and the seeds narcotic.

The leaves are bruised and applied to rheumatic joints, inflammatory swellings, bruises, skin diseases, sprains and for the burning of feet. In Malaysia, a decoction of the bark is given for abdominal pains. It is mentioned in the old manuscripts on indigenous medicine that an extract prepared from the Murutha flowers, leaves and tender shoots could be given (two tablespoonsful, twice a day) for leprosy.

Diyamidella

There are three kinds of Diyamidella or Blood water (the Sanskrit name is Samudra-phala or Dhatri-phala or Higgal). They are 1. Diyamidella or *Barringtonia racemosa*, 2. Godamidella or *Barringtonia ceylanica*, 3. Elamidella or *Barringtonia acutangula*. All three varieties have almost the same curative properties.

It is also known as the Indian Oak. Diyamidella is an evergreen tree. It is a water loving tree with cropping branches.

The wood is white, soft and durable. It is used for boat building, wall constructions, cabinet work, furniture, inner fittings of railway carriages, carts, etc. It is moderately common near water in the wet zone up to an altitude of 2,000 feet. This tree is found in South India, Malaysia and even in North Australia.

The bark is used for intoxicating fish before catching them and as a tan. The bark is astringent; it is used in the treatment of diarrhoea and in excessive mucus discharge, particularly from genital organs.

The bark is emetic and is used in indigenous medicine as a decoction in malaria. The seeds are said to possess similar properties to *Cinchona*.

Diyamidella is called Dhatriphala in Sanskrit and it signifies a nurse's fruit; it is said to be one of the best known domestic remedies in India and Sri Lanka.

When children suffer from a cold in the chest, the seed is rubbed on a stone with water and made into a paste and applied over the sternum.

The same paste, mixed with the juice of fresh ginger, is applied on the chest of children having acute bronchial catarrh.

The paste is also used in colic and flatulence. The seeds, in doses of two and three grains, are given with milk to children having an enlarged abdomen.

As an emetic, it is given in doses of two to five grains with fresh ginger juice. This helps to expel mucus from the larynx and clear the tubes of accumulated phlegm. The root is a bitter tonic for malaria.

Ela-Midella

The Ela-midella or Samudra-phala (or in Tamil, Kolaiadampu) is different only in the leaves. They are not as large as the Diyamidella leaves.

The flowers are the same as other midella trees, but the petals are small. Here the fruits are astringent and are used for a sore throat.

The seeds are used as a tonic that promotes the removal of catarrhal matter and phlegm from the bronchial tubes. This tree is also known as the Indian oak.

The Indian Oak tree like other oak trees, contains the same medicinal properties.

The parts of the Midella tree are rich in tannin which make them capable of stopping bleeding and healing tissues that have been damaged as a result of injury and infection. This plant is also known as Blood water.

It is mentioned in old medicinal texts, that it should be taken internally in small quantities and externally in larger doses, for all cases of haemorrhage such as nose bleeding, cuts and so on.

A decoction can be prepared with the *Midella* bark for heavy periods, piles, incontinence, varicose veins, eczema and for bleeding gums as a mouth wash.

To relieve headaches, the pulverized *Midella* seeds are used as snuff.

The Indian Oak tree is the same as other Oak in its curative value. You may put your trust in the oak tree, as far as the powers of healing are concerned.

A few Oak leaves make a most remarkable compress. With a few leaves of *Midella* you can make a whole host of troubles disappear.

The leaves are mostly suitable for external use only, as a compress, a gargle, as a foot bath and hand bath. For this put fresh or dried leaves into one pint of water, boil for about 15 minutes and use.

CURATIVE VALUE OF TAMARIND

Siyambala is a common acid used largely in our diet. It is used specially in cooking meat. Siyambala (or puli as it is called in Tamil) is mostly used in the preparation of Indian food. Pulianam is a favourite Indian soup.

It is a substitute for lime, and is used to enrich the taste of food. Tamarind has many curative values. The pulp is a cooling laxative, and also a carminative; it is largely used in home remedies.

The unripe fruit is highly acidic. The ripe fruit a year or two old, is used with other ingredients for jaundice or for lack of tension in the liver. There are many decoctions in which tamarind is used as the basic ingredient, specially for habitual constipation and also for diarrhoea. It is given as a drink for intoxication.

A half ounce of tamarind juice is given to correct bilious disorders. A cooling drink called "Amlika pana" is prepared with tamarind. Boil one ounce of tamarind pulp in a quart of milk and add a few dates. Strain the liquid and add cloves, cardamom, pepper and a little camphor to taste.

The drink is taken for inflammatory disorders such as fever, gastric affections, dysentery and loss of appetite. It is very effective to take tamarind pulp mashed and soaked in water and strained for sun stroke. The efficacy of the strained infusion is increased by adding black pepper, sugar cloves, cardamoms and camphor.

Tamarind water can be used as a mouth wash and gargle for inflammation of the mouth and sore throat. The seed coat, in doses of 10 grams with an equal quantity of cummin seeds and sugar boiled as a decoction is given for dysentery and diarrhoea two or three times a day. A hot poultice of the pulp is applied over inflammatory swellings. A paste of the tamarind pulp made with salt is used as a liniment in rheumatism. The seeds are powdered and made into a paste with cold water and this is applied over boils. This gives very good results. The tamarind bark is astringent.

The ash obtained by heating the bark with kitchen salt in an earthen vessel is given in one or two grain doses for acute colic and indigestion. A mixture of this ash with water is a gargle for sore throat and a mouth wash for minute ulcers on the tongue and in the mouth.

The leaves are as efficacious as the pulp. The tender leaves and flowers eaten as a vegetable are cooling and help to overcome biliousness. The juice of the leaves is given for bilious fevers and for urinary disorders. It is also useful for jaundice. A poultice of the fresh leaf is locally applied over swellings of ankles and joints, sprains, boils, sore eyes and scabies. A powder of the dried leaves is dusted over ulcers.

The botanical name is *Tamarindus indica*. In Sanskrit it is called Anlika. This tree is very common in Sri Lanka and is supposed to be indigenous to Africa. It is widely used as a herb and also as valuable timber. It has a beautiful grain - yellow with red streaks; it is a hard durable wood. It is used for furniture as it resists insect attack. In ancient times Siyambala furniture in a home indicated wealth.

It is used to make rice pounders, mortars, side planks for boat's wheels, axles and naves. There are other popular uses of the tamarind tree in India. The leaves yield a fixed dye which colours woollens red. The acidic flesh of the pod is extensively used for cleaning metal vessels. Its infusion mixed with sea water, is used for cleaning silverware. It is said that in Pakistan and in some parts of India, a cement is made by mixing finely powdered seeds with glue. This kind of cement is one of the strongest cements.

There is a famous tamarind tree at Kottiar which is called the "White man's tree". A stone tablet placed at this tree says:

"This is the White Man's Tree under which Robert Knox was captured in A.D. 1659."

MANIFOLD USES OF ERABADU

Erabadu is another decorative plant. Its botanical name is *Erythrina variegata* and it is also called the Coral tree. In Sanskrit it is called Parijata or Parijakaka mandara; in Tamil it is called Mullu-Murukku.

It is a large quickly growing tree, with a smooth yellowish grey bark. The leaves are triplicate and bright green in colour. The brilliant scarlet flowers are produced when the branches are bare of leaves - hence the name 'coral tree'.

This plant is associated with a Hindu mythological episode in which a quarrel occurred between Rakhmini and Satyabhama for the possession of its flowers stolen by Krishna.

Its leaves are said to represent the Hindu triad. The middle leaflet is Vishnu, on the right is Brahma and Siva is on the left.

In Hindu weddings, the Erabadu leaves are tied on to the stick which stands right in the centre facing the poruwa.

The plant is grown easily from cuttings and is commonly cultivated on fences. It is useful as a shady tree and it can hardly be called wild in Sri Lanka, because it is invariably found on land where human beings live.

Its medicinal purposes are found to be many. The bark is a remedy against biliousness, and is useful in eye diseases. The inner part of the bark, coated with ghee, and held over a flame, forms a fine soot, used for watery eyes.

The juice of the leaf is injected into the ear, and it gives relief in cases of ear ache. The fresh juice of the leaves, with a little bees' honey' is an efficacious remedy for tape worm, threadworm, and round worm. Dosage: one teaspoon once a day.

The tender leaves are cooked with coconut milk as a vegetable for children who are one year old. This prevents worm complaints.

As an agent that promotes secretion and flow of milk, either the

juice or the fresh leaves cooked in coconut milk can be given to mothers during the period of lactation. The juice of the leaves is applied to the gums to relieve tooth ache.

Erabadu leaves and bark are powdered together with lime and are stuffed into the naval of newly born calves, when diseased with maggots.

This is later followed with the burnt bark which is powdered and mixed with margosa oil and applied on the sores found on calves.

A poultice of the leaves can be used over rheumatic joints. Indigenous physicians use it to treat fractures and cattle diseases. It is used as an ingredient in many decoctions.

Throughout India, Pakistan and Malaysia the wood is used for making floats, canoes, catamarans and even for paper pulp.

In Sri Lanka, the wood is used mostly for match boxes. There are two other varieties of this plant which are called Yak Erabadu and Kaia Yak Erabadu (*Erythrina fusca*). These are medium sized trees, with a short stem and wide spreading branches.

The branches are very prickly, the flowers are large with crimson and purple petals. This plant is rather common in the dry zone of Sri Lanka.

The well known "Dadap" which belongs to the family of the Erabadu is a native of Java and cultivated in Sri Lanka as green manure. This tree grows in abundance near paddy fields.

The leaves are used for manure on tea plantations. It is not used very much as a medical plant: The other plant is *Erythrina umbrose* or "Bois immortal".

This is a shady tree used on cocoa plantations. It was introduced in 1881 and has become a common plant in Matale, Dumbara and elsewhere where cocoa flourishes.

Gaskala, or Parasu in Tamil (*Butea-monosperma*) is a small tree with bent irregular stem. The bark is very thick and the leaves are greyish.

The three petalled flowers are orange or white and silky outside; the bark exudes a rich gum known as "Bengal Kino" in India, which is

rich in tannic and garlic acids and is a most powerful astringent.

The seeds are a laxative and can be used in a paste as a remedy for ring worm. The flowers yield a yellow dye. The wood produces charcoal that possesses a de-colouring property.

This beautiful flowering tree grows in the dry zone, and is found in "Talawa lands" in Lower Uva. It also grows in parts of the Eastern, Northern and North Central provinces.

Many physiological experiments have been done with the bark of the Erabadu tree. In India they have found that this herb acts upon the central nervous system so as to diminish or abolish its functions.

When tested upon frogs they found the electric contractibility of the muscles was diminished and reflex action abolished. The experiments done in 1890 and in 1907 show that Erabadu contains a poisonous alkaloid.

MARGOSA, AS AN ANTI-POLLUTANT

Kohomba (Margosa, Indian Lilac or Vempur or Veppan in Tamil), is an extremely handsome tree with a large graceful crown. The leaves crowd at the twig ends; the flowers are small and about 3/4 inch in diameter; they are white and sometimes a very pale shade of violet, and they are sweet scented. The wood is light chestnut brown with belts of a darker colour.

The Margosa tree is used a great deal in indigenous medicine. The powdered bark and fresh leaves are mentioned in the Pharmacopoeia of India (Kanny Lall Dey). According to the old texts on indigenous medicine, the presence of the tree is an insect repellent.

The twigs are used to clean the teeth. The fresh juice of the leaves with salt and bees' honey is given for intestinal worms. The juice is prescribed for jaundice and skin diseases.

In infusion or a decoction of the fresh leaves is a bitter vegetable tonic especially in chronic malaria, because of its action on the liver. It is given in half to one ounce doses.

Externally, the leaves are applied for skin diseases as a discutient (a drug which disperses or absorbs a tumour or any coagulated fluid in the body) or as an antiseptic.

They are also used for boils, chronic ulcers, eruptions due to small pox, glandular swellings, wounds etc. They are used either as poultices, decoctions, liniment or ointment.

A piece of cloth, saturated with the decoction to which has been added a little spirits of camphor, is used as a bandage over compound fractures.

This poultice helps to disperse glandular tumours. A warm strong decoction is an effective vaginal douche in treatment after childbirth. The astringent and antiseptic virtues of the bark have been experimentally confirmed.

The root bark has the same properties as the bark of the stem.

The gum that exudes from the stem is a stimulant and has a soothing effect on the skin and mucus membranes, and is used in catarrhal diseases and general debility.

Dr. Gunewardena's work on "Medicinal Plants of Ceylon" mentions Margosa as a remedy against falling hair. "Prepare the oil from the sun dried seeds of Nim without exposing it to fire. Take the oil and pour two drops into the nostrils as snuff, and drink two teaspoonsful with cow's milk, at body temperature, every morning for one month, to cure the premature decay and falling of the hair."

The seeds are also used as an insecticide and as a detergent for washing the hair. Their suspension is used as a spray. The astringent and antiseptic virtues of Margosa oil have been experimentally confirmed.

The oil is offensive in odour, and known as "Vepennai" and is largely used by the Tamils for external application as a kind of embrocation. A dose of the oil is given internally to the mother after delivery of a child.

It is also applied to the body of the mother and the child. The room is fumigated daily with Margosa oil.

Dr. John Attygalle says, in his book, "Materia Medica" that he has seen hundreds of instances in which this procedure was adopted and the impression left in his mind is that margosa oil acts as a powerful and effective antiseptic.

He also says that "thus only could the comparatively very small number of puerperal fever cases we meet with in women, after confinement, be explained, considering the utter want of cleanliness on the part of "native" midwives.

Even in cases of instrumental delivery after prolonged, ineffective labour pains and with laceration of the parts, cases of severe puerperal fever are comparatively few, due to the treatment by Margosa oil. A paste of the dried seeds has the same uses as the oil; it is also used for killing lice on the head. The fruit is described as a purgative and it is one of the five bitters or "Pancha-Tikttha".

The flowers are dried and are used as a tonic for fever. A very effective food for diabetes is made out of Margosa flowers. It is called as "Vedakham", a kind of "Vadei".

These, fried in gingelly oil, are very tasty.

Nim is a fine shady tree. It is mentioned in Ayurveda texts that in the ancient days Kohomba trees were methodically planted.

Kohomba trees were always planted in front of the house. The smell that comes from the Nim tree is a disinfectant and kills germs.

It helps to purify the air. Therefore planting Kohomba trees, where air pollution exists serve a dual purpose as shade trees, and as an anti-pollutant.

FIG TREE : MANY USES AND LONG HISTORY

Ficus Glomerata, or *Ficus Racemosa* is the Botanical name for the fig tree. In Sanskrit, it is known as 'Anjira' or 'Udumbara'. This tree belongs to the family of *Vanaspati* or *Moraceae*.

If there is one tree that can be said to belong to the history of humanity, it is certainly the fig tree. It shares with the vine and the olive the honour of being the most frequently mentioned in the Bible.

It is thought by some, that Adam and Eve used the leaves to cover their nakedness. The Egyptians believe that its fruits followed the acorn as the food of their most distant ancestors. They also held the fig tree in veneration making use of it in several remedies.

The Hebrews, the Greeks and the Romans cultivated the fig tree. According to historians many wars have been fought to conquer lands producing this delicious fruit.

Eaten all the year round, fresh or dried in the sun by Mediterranean people, the fig or Attikka fruit was also used by them as a valuable general remedy. The Old Testament tells us that it was used as poultices to cure abscesses on the gums and inflammation of the mouth.

Plato has called the fig the philosopher's friend, because it is said to strengthen the intelligence. Recent discoveries have shown Attikka or figs as a protection against possible poisoning.

Eating figs is nourishing and fattening. It is said that 100 grammes of fresh figs give 100 calories and 100 grammes of dried figs give 250 calories.

Figs taken with dates and raisins in the form of a decoction constitute a remedy for coughs, persistent colds, lung diseases in general and also for throat conditions.

For throat irritations, inflammations of the mouth, dental abscesses, gargle or wash the mouth with a hot decoction by boiling 5 or 6 figs in two cups of water or milk for a few minutes. For constipation, wash five or six dried figs, put them in a bowl and cover with lukewarm

water, leave to soak overnight and eat the figs first thing in the morning; also drink the water. The fig seeds or pips, are the parts of the fruit that have a stimulant and laxative action on the bowels.

For pulmonary complaints, coughs, chronic bronchitis, whooping cough and catarrh drink the same decoction in the course of the day. An infusion of fresh Attikka leaves can be used as a cough remedy and acts on the circulation of blood. They ease difficult menstruation.

For haemorrhoids, roast some Attikka fruits, crush to a powder and mix with honey to make an ointment which should be applied lightly to the affected glands. This powder, used like coffee, is also prescribed for pulmonary complaints.

There is another decoction prepared with the Attikka bark for bleeding piles. Take four kalandas each of Attikka bark, young King Coconut flowers, Madan bark (*Syzygium cumine*) and boil in 8 cups of cold water and simmer it down to one cup. Dosage : 1/3 cup of the infusion in two doses, twice a day.

Figs make a good hair wash. Lice drop off and they cleanse the scalp and keep away dandruff.

Attikka fruits are boiled and eaten for cooling the system. The Attikka is a very effective herb for disorders in blood circulation. Attikka acts as an effective herb in binding the stools. There are many decoctions which include Attikka as a herb for dysentery and diarrhoea.

Take 4 kalandas of tender coconut flowers (la pol mal), Kalanduru (*Cyperus rotundus*), Attikka bark (*ficus racemosa*) and make a decoction boiling all together in 8 cups of cold water. Simmer it down to one cup. Dosage : half a tea cup in cases of diarrhoea.

Attikka or figs are astringent and carminative. The dried fig is given in doses of 2 1/2 kalandas with honey in diarrhoea during pregnancy.

The external uses of figs are many. When the milky sap (that runs out when a branch is broken or bent) is applied morning and evening on warts and corns and it helps to remove them.

It is a popular local application for mumps and other glandular swellings, rheumatic joints and pains in the chest. The fig leaves are

soaked in milk and applied with honey to prevent pitting in small pox.

There are other uses of this tree apart from its uses as a herbal tree. The wood is soft and light and is used for making tea chests, cotton reels, plank shutters and toys. The leaves are used as fodder for cattle.

It is a large spreading tree without aerial roots. The leaves are oblong and dark green. Figs grow in clusters on short leafless branches. This tree grows wild in Sri Lanka, especially close to areas where water flows. This nice and shady tree, though known as a wild tree has many curative properties which are not known to many.

TIMBIRI HAS ANTISEPTIC PROPERTIES

Timbiri is a common dry zone tree, but it is also generally found near streams or damp ground. Botanically it is called *Diospyros malabarica*. In Tamil it is known as *Tambilik-kay* or *Panichchai*.

It is a large densely leaved tree with a dark, rather smooth bark. Its branches spread irregularly and it has both male and female flowers. The male flowers are rounded or triangular, lobed, pale green in colour and coated with silky hair.

The female flowers are thick, pointed at the apex, and have a few dark hairs near the calyx. The fruits are conspicuously large and are about 1 1/2 to 3 inches in diameter.

These are usually solitary, and are coated with a reddish colour. The seeds are large, brown, compressed and variable in number.

The wood is nearly white with a trace of black heartwood. The fruits afford a gummy juice, very rich in tannin, and is used for preserving fishing nets and lines. The ripe fruit is said to contain 20 to 40 per cent of tannic acid.

The gum is used medically as an astringent, and is useful in diarrhoea and internal haemorrhage. A gargle is made from an infusion of the fruit. The exudation from the tree is an antiseptic and a protection against insects.

Timbiri is known as *Tinduka* in Sanskrit. In Bengal a preparation is made by heating the fruit in a large vessel, and boiling and juice which has been extracted and mixing it with powdered charcoal. This is applied as a preservative to planks of wood.

A brownish liquid used for dyeing and tanning is prepared from the half ripe fruit. The ripe fruit is edible and is beneficial in blood diseases and in gonorrhoea and leprosy.

In India "Tunika Oil" obtained from the seeds is used in dysentery and diarrhoea. Although the ripe fruit is very sweet insects will not touch it. An infusion or decoction of the rind is useful in chronic

dysentery and diarrhoea.

The Timbiri tree is sometimes known as wild mangoosteen. A poultice of the bark can be applied to boils and tumours; a decoction of the bark mixed with ghee is a very efficacious dressing for burns.

A powder of the root bark can be given like coffee for coughs. An extract of the fruit in doses of one to five grains with water, three times a day is an excellent remedy for chronic diarrhoea and dysentery. A watery solution of the extract is a valuable vaginal douche in leucorrhoea.

The fruit juice is an efficacious agent which checks bleeding. An infusion of the fruit is an excellent gargle for sore throats. In asthma the dried rind of the fruit is smoked in doses of 45 grains.

Timbiri is a very important herb for parturient mothers. The labour room or the special apartment where children were born in ancient village homes was known as the "Timbiri Geya". This is a dark room with one door. Darkness has been found to be good for the new born baby.

The coconut oil lamp lit at the time gives a dim light.

The wood is used to build this room. It is also used for making equipment like the bed, the stool etc. Timbiri, Beli, Nuga, Badulla and Ebony are used mainly for this purpose. These timbers have a medicinal value. Timbiri is a hard wood containing antiseptic properties.

The Timbiri tree has a historical value. It is mentioned in the *Poojavalaya* that a Buddhist monk, named *Kalu Buddha Rakkhita*, delivered a sermon from the *Kalakarama Sutta*, on an *Amawaka* (dark) Poya day, under a *Kalu Timbiri Tree*.

The *Anguttara Nikaya Gatapadaya*, or the glossary to the *Anguttara Nikaya* too, mentions the same fact, which is said to have taken place in *Mihintale*.

Today, we can see many Timbiri trees grown round the *Kaludiya pokuna*. The leaves of this tree are dark; it gives a darker shade to the water of the pond, hence the name of the pond *Kaludiya Pokuna*.

Timbiri means dark, and *Timbiri-geya* means a dark room or a dark house. The door posts and the doors are made out of Timbiri and this adds more darkness to the room.

Timbiri is another tree that needs our care and protection.

FRUITS AS MEDICINE

The cashew belongs to the Anacardiaceae family. Cadju Apple or the “Cadju Puhulan” is an effective medicine for scurvy, a disease due to lack of fresh food. “Cadju Puhulan” is rich in vitamin C. Its juice being a powerful diuretic is given in uterine complaints and dropsy. It is a useful local application for neuralgic complaints and rheumatism. “Cadju puhulan” juice is used to make vinegar, wine and other beverages.

The oil extracted from the shell of the nut contains cardol and anacardic acid. This oil is used to remove warts and corns and also for ringworm. It is applied locally for elephantiasis. In Sri Lanka this oil is used for hoof diseases in cattle. In the ancient days people used the cadju oil to protect timber and books from insects and white ants. The oil is a sort of tar and has been used for tanning fishing nets and also as paint or as an ink to be rubbed on the Ola scripts.

The Cadju kernel which is like the almond is sometimes recommended as a medicine for diabetic patients. The gum that exudes from the stem is insect repellent and therefore used for binding books.

The Mango belongs to the same family of anacardiaceae. The mango besides being a delicacy is an astringent. The mango tree as a medicinal plant has a great many uses in Ayurveda. All the parts of the tree are used medicinally. The tender leaves dried and powdered are given for diarrhoea and diabetes.

The smoke from the burning leaves can be inhaled for the relief of hiccup and throat diseases. The ash is a popular remedy for burns and scalds. The midrib of the leaves is burnt and the ash used to remove warts on eyelids.

It is an effective mouth-wash for toothache, sore gums and sore throat. The juice of the bark has a marked action on mucus membranes. It is given as a medicine to stop the discharge of mucus from the uterus, bowels and intestines. It is also used for the treatment of dysentery and bleeding piles. The juice of the fresh bark with the addition of the white

of egg and a little opium is given for these diseases.

A decoction made from the bark is used for the prolapse of the rectum and vagina. The dosage is two tablespoonsful every four hours. For chronic eczema take the juice of the bark (about one or two tablespoons) and into this add one teaspoon of copper sulphate, keep for about 12 hours, strain and apply on the eczema twice a day. An ointment is made from the gum that exudes from the tree as a dressing for scabies and other parasitic skin diseases.

The unripe fruit is sliced, mixed with salt and dried in the sun. The seed kernel of these is salted. Mangoes are frequently used as an ingredient for a decoction for dysentery. The kernel of the mango seed is roasted and powdered and a teaspoon of this powder in curd is given to expectant mothers suffering from diarrhoea.

The sun dried slices of the unripe fruit are excellent remedies for scurvy. The green skin of the unripe fruit is dried and powdered. Two teaspoonfuls of this powder in half a cup of cow’s milk with a teaspoonful of bees’ honey is a tonic for bleeding in dysentery and bleeding piles. When unripe mangoes are picked the milk that oozes near the stem is mixed with lime juice and applied for skin diseases.

The mango has several names in Sanskrit such as Amra, Chuta, Schakra etc. According to Hindu mythology it is a transformation of Prajapathi, the lord of creation. A spring of mango leaves from one of the five branches of leaves (Pancha Pallava) is used in Hindu ceremonials. The mango is described by Hindu writers as the “Pride of the Garden”, the choicest fruit of the fruits of Hindustan.

There are many varieties of mangoes but ‘Etamba’ (*Mangifera zelanica*) is indigenous to Sri Lanka. The bark of the mango tree is frequently used as an ingredient in medicine for the treatment of orthopaedic complaints.

The Sinhalese use a bunch of mango leaves for the purpose of blessing in black magic rituals. The reason for this could be that mango leaves contain a disinfectant.

There have been many articles written by various writers about herbal plants and their uses in recent daily publications. The recent

article written about peanuts or "ratacadju" is encouraging to those who value herbal plants.

The article that brought to light 'val del' as an anti-tumour drug is a worthwhile achievement in research on endemic plants. Most medicinal plants which are indigenous to our country are still to be recognised and analysed.

Systematic research on herbal plants should be encouraged in our country as is being done in India.

CURATIVE VALUE OF FRUITS

Uguressa is another regional fruit. There are two varieties - rata Uguressa and Uguressa. In Sanskrit Uguressa is called Kinkini while Rata Uguressa is called Prachinam alaka. In Tamil both Uguressa and Rata Uguressa are known as Katukali.

Uguressa is an endemic tree but Rata Uguressa was introduced into Sri Lanka from Malaysia. The fruit is like a plum. The tree is fairly big and is a hard wood. It has stout sharp long spikes on the trunk of the tree and branches, and it belongs to the family of Flacourita. The fruits are edible when they are very ripe. The leaves are astringent and carminative. The dried leaves are pounded and the juice is given for asthma, bronchitis and catarrh.

The fruit when it is half ripe is recommended for bilious conditions. It relieves nausea and checks diarrhoea. The curative value of this fruit is mentioned in the indigenous medical books as a remedy for high blood pressure. Uguressa is also known as the Indian Plum.

Ambarella is known as Hogplum or wild mango in English. In Sanskrit this is known as Adhvaga-bhogya which means "travellers' delight". It is also known as Titta-Vriksha meaning "wild tree". It is so called because the pulp of the fruit is astringent and is used as a remedy for dyspepsia. This tree is more common in India. In Sri Lanka it is not found as a forest plant but it grows in gardens, mostly in the low country. The Sri Lankans as well as the Indians use the fruit as an acid vegetable. It is also made into preserves and pickles.

The seasoned green fruits are recommended for diabetic patients. The tender leaves are used as a poultice for old and incurable ulcers. The bark is used as one of the ingredients in prescriptions recommended for dislocation or fractures. The juice of the bark along with king coconut milk is boiled together until an oil is formed. This oil has been used for burns and it has been proved that the white scars on the skin due to burns are brought back to normal colour. The botanical name is *Spondias pinnata*.

Kottamba is known as the country almond or Indian almond. This is a medium sized tree with large shining leaves. It is not endemic to Sri Lanka. It is a native of Malaysia, but is now grown in most tropical countries. It drops its leaves twice a year, and when the leaves drop it starts bearing. The wood is light and durable and is used for house building, and the making of yokes and wheels. The bark of the Kottamba tree yields a black pigment which is a remedy for scabies. Its leaves contain tannin. The juice of the leaves is used to prepare an ointment for scabies. The kernel of the fruit yields 50% oil resembling almond oil and it can be used as a substitute for almond oil.

The Kottamba tree belongs to the family of combretaceae and the botanical name is *Terminalia catappa*. It is also known as Jungli Badma in Hindu. In Sri Lanka Kottamba trees grow effortlessly in the jungles, in villages and sometimes in the suburbs of the towns. Kottamba trees are grown for shade. This is the season for these almonds and they are sold in plenty even on the pavements. People in the villages have less regard for this fruit, and plenty of fruits can be found rolling under the trees. The curative value of almond seed is considerable and they produce a valuable oil, which unlike other oils is harmless for heart patients.

Barefoot doctors in Malaysia have found that Kottamba seeds can be given to patients who recover from typhoid.

During ancient times in Sri Lanka, children collected these seeds and preserved them like cadjunuts in the attics of their kitchens. When the season was over they cracked the nuts and enjoyed eating the kernel. I don't think these children ever knew the value of the oil that these seeds contained. Eating almonds makes your skin smooth. It is a safe oil which is as good as peanut oil in food. Those who experiment with herbs should enter Kottamba into their lists. We can easily produce nutritious butter out of these seeds.

Those in the charge of the tree planting campaign should encourage the planting of the Kottamba tree on a large scale for its use, its beauty, its shade and its most valuable medicinal properties.

CURATIVE VALUE OF THE BELI TREE

The fresh flowers of the Beli tree (*Aegle narmelos*) are bound over the eyes in Ophthalmia. Indian Rose water is supposed to be distilled from beli flowers. An infusion of beli flowers clears the sediment collected in the kidney. A hot poultice of the leaves can be applied to the eyes in Ophthalmia.

A hot poultice of the beli leaves is applied on the head when in a delirium. The same poultice is applied on the chest in acute bronchitis. The roots and the fruit are more commonly used in medicine. Beli root is one of the ingredients in the DASAMUL (Ten medicines) decoction. The root bark is regarded as a corrector of the imbalance of wata, and is prescribed as a decoction for continuous fever, melancholia and palpitation of the heart.

Both ripe and unripe beli fruits are used in medicine. The unripe or the half ripe fruit is an astringent and an aid to digestion. It is used in dysentery and in diarrhoea. It is particularly useful in chronic diarrhoea and in dysentery in children. It is a very effective remedy for irritation of the alimentary canal. As a traditional medicine the half ripe fruit along with roasted rice is given for bleeding haemorrhoids. The fresh half ripe fruit can be sliced and dried in the sun. These are powdered and poured like tea and taken every morning and evening as a drink in the case of bleeding piles. The ripe fruit is aromatic, cooling and a laxative.

The pulp of the half ripe fruit dried in the sun and powdered can be given with treacle for any kind of bleeding from the anus. The ripe fruit is edible and is useful both in constipation, diarrhoea and dyspepsia. A sherbert of the ripe fruit is a very cooling drink.

An infusion of the beli root and vilanda (pori) with a little sugar or no sugar is a refreshing drink for thirst, specially in the hot season.

The beli tree is prized for its value in medicine. In India and in Pakistan people make other uses of this tree. It is a pale aromatic hard wood and it takes a fine polish. The wood is used in carving. In the villages of Sri Lanka, people make beautiful walking sticks and handles

for tools. In Pakistan the yellow dye obtained from the rind of the unripe fruit is used in calico painting. An essential oil, martinelle oil, is distilled from the rind. The pulp has detergent properties and so it is used for washing clothes. It is also used as a varnish.

The gum that exudes from the trunk makes a good adhesive. In Sri Lanka village women boil the pulp of the unripe beli fruit and use it as a thick paste to cover the spaces of the Winnower (kulla).

In Pakistan and India the pulp mixed with lime was used as an effective cement which sets rapidly. In some parts of India, it is still used in the construction of wells. Even in Sri Lanka there are instances of ancient plastering which has stood firm for centuries. It can be the same beli mixture as is found in India. It is also used for building basements. On the whole the beli tree is far too valuable a tree to be felled for its timber.

JAK IS NUTRITIOUS

Jak (*Artocarpus heterophyllus*) has two varieties. Soft (vala) and hard (waraka). The waraka or hard jak is more popular than the soft.

The bark is used mainly for medicinal purposes. It is widely used for sprains and fractures.

Jak, when tender is called polos. This is a delicious curry among the Sinhalese and Tamils. In the diet chart of the ancient kings of Sri Lanka this polos curry was never absent. Nursing mothers are given polos curry and even boiled jak to increase their milk. Polos is given as a curry to patients recovering from diarrhoea. This helps to settle the stomach.

The king's menu was a well balanced diet. It was arranged by educated vedaralas who served the king.

Polos is a curry that is relished by expectant mothers. The curative value of polos is that it is digestive, nutritious and helps to enrich breast milk.

The vala or the soft ripe fruit is eaten by the villagers even on an empty stomach. It is a laxative. It helps to clear the bowels and to digest the food. Vala is given to children suffering from bronchitis. This is given in the form of a 'kema'. It is not possible to prove scientifically how the 'kema' acts, but all we know is that it answers the problem. The vala bulbs are kept in dew, dipped in bees' honey and early in the morning patients are given the juice.

They are given one bulb every morning to be taken on an empty stomach. Vala and Waraka are now available as canned fruits.

The Waraka tree has a different medicinal value. Waraka barks are specially used for sprains.

The Waraka leaves are dried, powdered and poured like coffee. This coffee is used by diabetic patients.

In the standard work on indigenous medicine "Sarasansepa" the following prescription for diabetes is given:

“Pakuwanan Moshapatran Chrunan Tavilana Tenayat Pramehan Sakalan Sigraṇ Masaye Muttra Sanasayah”.

The meaning of the above is as follows: pound well the ripe leaves (of the Jak tree). Fry it in gingelly oil. Take and diabetes will undoubtedly vanish forthwith. The dosage is two to three tablespoonsful twice a day before meals. One can hardly imagine that so simple a remedy could have such marked results on this disease. It looks too simple a remedy to cure so formidable a disease but the fact that it is mentioned in a standard work on medicine, shows that it has been an effective remedy.

History has indicated that fruits have been used as remedies of the highest efficacy in quite a long list of diseases. Fruit cures are coming into great favour in medical institutions and among practitioners in Western countries. In these cures the patients are placed on an exclusive fruit diet for a period of several days. The particular fruits to be eaten are determined by the nature and requirements of the condition under treatment.

MEDICINAL PROPERTIES OF WOOD APPLE

In English it is called Wood Apple; in Sinhalese, Divul. It is a common fruit and a delicious cool drink. It belongs to the family of Rutaceae. The botanical name is *Feronia limonia*. In Sanskrit it is named *Kapitta* or *Kapipriya*. It means dear to monkeys. There are about ten names in Sanskrit for the wood apple. This tree is an endemic tree. The fruits have a rough woody, hard white shell. It is also called Elephant Apple because the fruit is edible and is like an elephant's skin.

The medicinal properties and the uses of the wood apple are very similar to beli. The half ripe fruit is very astringent and is prescribed in cases of dysentery to be taken with bees' honey. The pulp of the fruit is edible and is useful in salivation, sore throat and infections of the gum, throat and mouth.

The pulp of the unripe very tender fruits can be ground and squeezed into the eye when it is injured with a thorn. I have seen it as a wonderful remedy to remove Daluk (*Euphorbia antiquorum*) milk from the eye. Daluk is a highly poisonous plant found often growing on village fences. When people clear their fences they are extremely careful when chopping the branches of this tree. Once the milk gets into the eye, it is extremely painful. When the tender wood apple juice is squeezed into the eye the Daluk milk collects in one place and is easily removed. Divul juice helps to remove any foreign body in the eye. The ripe fruit is refreshing, aromatic, astringent, carminative, a tonic and an antidote. It is also given as a medicine for scurvy. It is used as a stimulant in diseases of children.

Divul or wood apple is common in the dry zone. When we enter the dry zone, we find plenty of wood apples under trees, but most of these fruits are pulpless. The elephants relish this fruit and swallow them. Once they defaecate, the fruits seem to be as they were, but actually they are pulpless.

The sherbert prepared with it is not only a cool drink, but also a remedy for dysentery. In the traditional Ayurvedic books it is

mentioned that a Churna is prepared with unripe fruits. This is administered for chronic dysentery, and diarrhoea. For dysentery, the sherbert is prepared with bees' honey and milk is not used. This is found to be very helpful in bowel complaints after a prolonged attack of dysentery.

The wood apple tree has a transparent gummy substance which exudes from the stem when cut. The gum is given with bees' honey for diarrhoea and dysentery. Professor J.P.C. Chandrasena mentions in his book "The Chemistry and Pharmacology of Ceylon and Indian Plants" that when this gum is treated with fuming nitric acid the gum gives musio acid abundantly. It is believed that the gum is better for mixing colours than gum arabic.

In Pakistan and in India this gum is used for the mixing of water colours, dyes, varnishes. This tree is valuable as a medicinal plant and useful as a hard wood tree. The wood is used for house building, naves of wheels, agricultural implements, oil mills, ornamental carvings, etc.

The woody shell is used for making fancy articles in Pakistan. I think this is a valuable point for our cottage industries where handicrafts are made.

Beli is in the same family of Rutaceae. Its botanical name is *Aegle marmelos*. In Sanskrit it is commonly known as *Bilva*, Sri and by many other epithets. It is common in Sri Lanka and other tropical countries. All the parts of the plant are used either singly or with other drugs in the treatment of several diseases. Unlike the *Divul* the *Beli* tree is considered sacred to Siva and the leaves are used by his devotees in their religious festivals and ceremonies.

The juice of the fresh leaves with bees' honey is regarded as a laxative. A decoction of the leaves and root with pepper is a good cough mixture in cases of chronic bronchitis, asthma and consumption. A strong decoction of the leaves is a common fermentation for rheumatic swellings. It is also a good application for scabies and other skin complaints. A decoction of *Beli* leaves with pepper corns is an effective remedy for diabetes. The leaves are sometimes used for bathing women suffering from puerperal fevers.

FLOWERS THAT HEAL

Flowers look beautiful in the garden. They are pretty in vases in the house as decorations. We think that flowers only help to please the eye, but they are also good healers.

A large variety of flowers are used as medicine in the treatment of infants and children. The "Malkasaya" for Ratagaya in infants is one example. *Ratmal* or *Vitchi* (in Tamil) is widely used in medicine for infants' diseases. *Ixora coccinea* is the botanical name for *Ratmal*. This is regarded by Hindus as a tree sacred to Shiva, and the word *Ixora* itself is a corruption of *Shiva* or *Ishvara* by the Portuguese.

Sometime ago, Dr. V.P.P. Willis, a wellknown Western practitioner brought the root of this tree to the notice of the profession as a remedy for dysentery. He further stated that it was a good tonic for weak stomachs. A very useful domestic remedy, composed of *Ratmal*, is given for catarrh in children.

Sapattumal or *Vadamal* (*Shoe Flowers*), (*Hibiscus rosasinensis*) is not an endemic plant here but has been introduced from China or the Phillipines, many years ago. This flower is prescribed for uterine haemorrhage. *Shoe flowers* are fried in ghee and given in cases of excessive menstruation. The buds are mostly used in children's diseases like *Ratgaya*. A stimulating application for the hair is made by mixing the juice of the fresh petals and olive oil in equal portions and boiling it till all the water has evaporated.

Asoka (or *Hopalu*) is botanically known as *Saraca indica*. The *Asoka* tree when in flower is a glorious sight. It is connected largely with the mythology of the Hindus. There are many names in Sanskrit for this tree. *Angana Priya* is one, which means dear to women. *Asoka*, as a medicine, is very frequently used by Ayurvedic physicians as astringent, especially for uterine haemorrhage. A fluid extracted from the flowers is given for haemorrhagic dysentery. The dried flowers are given in diabetes.

Champa or *Sapu* (*Michelia champaca*) is cultivated mostly for the sake of its flowers. These flowers are astringent and diuretic. It is not

an endemic plant here, but for ages these flowers have been used as a herb. When people were not educated in the prevention and care of social diseases, the indigenous herbs were very useful. Sapu flowers are carminative, antispasmodic, diuretic and are used for stomach ailments. An infusion of the Sapu flowers is given in cases of gonorrhoea, for prevention against scalding and also in kidney diseases. An ointment of the Sapu flowers made with some mild oils is useful as a dressing for rheumatism, headache, vertigo and inflammation. The oil extracted from Sapu flowers is used locally in the case of headaches. This oil rubbed on the abdomen relieves flatulence.

The flowers of the Delun tree (*Punica granatum*), mostly known as Pomegranate are used as treatment for sore eyes. The buds are boiled and the infusion is given for chronic diarrhoea especially in children and even in the case of bronchitis. The infusion of the powder of these flower is given in doses of four to five grains for round worms. The powder is used as a substance that checks bleeding from the nose.

Desaman of Pichchamal (*Jasminum grandiflorum*) is another well known flower used in medicine. These flowers can be crushed and applied to the breasts of a nursing mother to check secretion of milk if an abscess is developing. The essential oil extracted from the flowers is a deodorant. It is used when discharges from the nose and ears are foul smelling. The Spanish Jasmin (or the Saman pichchamal) is widely used in medicine. These flowers are mainly used for eye diseases. It is used to ferment the eyes when they are swollen. The juice is put into the eye for redness. Dried flowers are used as a pillow for headaches and catarrh.

Ehela or Cassia Fistula, is known in English as Golden Shower or Purging Cassia. In Sanskrit it is called Suwarnaka or Raja taru, which means Royal Tree. When blooming it is beautiful with its long springs of yellow flowers. The Ehela flowers are boiled and given as a safe purgative for children and expectant mothers. The flowers are made into pulp and applied round the navel of a child suffering from flatulence. This causes evacuation.

The coconut flower, which is very common in this country, is a very effective medicine in haemorrhage and dysentery. 12 Kalandas of the coconut flower boiled in 8 cups of water and reduced to one, is highly recommended in Sasaneepa (the Ayurvedic medical book) for dysentery.

OLEANDER : A MEDICINE AND A TANNING AGENT

Oleander is one other flowering plant that the Director of Highways has recommended for growing at the Maligawatta Development Scheme. Oleander belongs to the family of Apocynaceae. Its botanical name is "*Nerium odorum*". In Sanskrit it is called Karavira and in Tamil it is called Alari.

This plant according to the Sinhalese Materia Medica belongs to the same family of Araliya.

In the Sanskrit work Nigantu Saligrama, Oleander is known as Hayamara, or Ashvamaraka, which means "horse killer".

There are two kinds of Oleander: Rakta Pushpa (red flowered) and Svetha Pushpa (white flowered).

Both are described in the Nighantus as poisonous but they both have the same therapeutical properties. Oleander is used externally more than internally.

The plant contains properties out of which a kind of rat poison is manufactured in Pakistan. The roots are more poisonous than other parts of the plant. The scientific experiments done in India have shown that the leaves contain two glucocides, nerrin and diedrin.

A decoction of the leaves is externally used for reducing swellings and for killing skin parasites. A paste of the leaves is applied in cases of ringworm. A paste made out of the roots is said to be an effective application for cancerised wounds and skin diseases according to the Ayurvedic texts. A decoction of the root is used to reduce inflammatory swellings.

In his book "Healing Plants", Dr. William Thompson M. D. says that active properties in the leaves include cardiac glucocides. They help in cases of heart disease and as a circulation diuretic. Oleander is widely used for this purpose in Europe instead of digitalis.

Ranawara, botanically known as *Casseea-Auriculata* too is a lovely bush which flowers beautifully. Its leaves are crowded at the ends of the branches. The bark is about as thick as cinnamon, tastes sweet and is moderately astringent. It is an evergreen plant.

The flowers are large and yellow. The plant grows widely in the Madhya Pradesh and the Western Peninsula of India. It grows abundantly throughout the dry zone, and is a common plant near the coast of Sri Lanka.

The Panchangaya or the five parts of the Ranawara Tree such as the leaves, roots, flowers, bark and seeds are commonly used in indigenous treatment. They are used especially in the treatment of diseases of the urinary organs and also in cases of constipation.

In the treatment of diabetes it gives excellent results either as a powder or as a decoction with bees' honey.

In the book, "The Chemistry and Pharmacology of Ceylon and Indian Medical Plants" written by Professor of Chemistry Dr. Chandrasena, it is mentioned, that the "pleasant tasting pear shaped seeds of this species are refrigerant and an agent which dilutes fluids."

In the Indian Book of Medicinal Plants of India and Pakistan the same preparation is referred to. The dosage should be one teaspoonful twice a day.

In the old indigenous medicinal books and in the book, "The Vegetable Products of Ceylon", by Frederic Lewis, it is stated that the kernel of the seeds is finely powdered and blown into the eye in certain stages of Ophthalmia. Professor Chandrasena refers to the same treatment.

An infusion of the leaves makes a cool drink. The indigenous physicians have recommended Ranawara leaves and flowers in the form of a tea, especially in the case of diabetes. It is also called Matara Tea, under which name Trimen's Flora of Ceylon refers to it. The people in the dry zone drink it as a remedy for malaria or other fevers.

It is extensively used in India for tanning and dyeing. It is chiefly used for heavy hides where colour is not of much importance. It dyes leather to a buff colour. It is also used to modify dyes. In the past

Ranawara bark was exported from our country in considerable quantities for that purpose. This is referred to by Frederic Lewis.

The wood is not used as timber, but is suitable, for handles of small tools.

PLANTS FOR HEALTH AND BEAUTY

Pimples are a problem of youth. Mischievous fingers always squeeze out pimples. When they are pricked they remain as black heads or even leave tiny holes on the skin. Let us not meddle with them. Instead apply a paste of cummin seeds (suduru) over the pimples. It gives wonderful relief. A paste of nutmeg (sadiccka) made with milk is an efficacious remedy for removing pimples on the face. A paste of red sandalwood (rathandum) and turmeric (kaha) made with milk is a useful local application.

A mixture made of one part sandalwood oil and two parts mustard oil is also a very effective application.

Prickly heat is more annoying than painful as it irritates all the time. A cold water bath taken sometime after applying a watery paste of gram (Kadalay) flour on the body brings relief.

The powder of sandalwood used as a dust all over the body is effective in giving relief in cases of prickly heat. The paste of the Pini-jambu (Big jambu) applied over the body cleans the skin and relieves the itching. When prickly heat is severe, an infusion made overnight of 180 grains each of lightly crushed Pomegranate roots, Cummin seeds, Corriander seeds, red rose petals and sugar is given the following morning : this drink relieves the itching.

Ringworm is a skin disease which leaves round marks on the skin. It is very irritating and sometimes the patches are moist. It is also highly contagious. A paste of the Ehela (Cassia Fistula) is applied over the parts affected by ringworm. A paste of the roots of Aththora (*Atylosia trinervia*) mixed with honey or a paste of the roots made with sandalwood or the seeds mixed with buttermilk is very effective. The juice of Aththora leaves mixed with buttermilk too can be used to cure this condition.

The mixture of the juice of Pani tora (*Cassia tora*) leaves with lemon juice or mixed with buttermilk is an effective remedy for

ringworm. The juice of tamarind leaves rubbed on the affected area is an easy cure. These remedies have been tested for hundreds of years and they have proved to be effective. All we need is to identify the herbs.

Very old men in the villages are often the best authorities on herbs and their curative value. Sri Lanka has an abundance of greenery, so why should we not make use of it.

In my previous article I said that many of our herbal plants have an economical use and I also mentioned the value of garlic. Corriander is another herb, which has similar economical uses. This herb is used in indigenous medicine. The seeds are used as a spice. It is aromatic and flavours curries, and some sweet dishes. Corriander brings to one's mind "Arabian Sweet Cakes". It is still sold in Moroccan markets.

Corriander leaves are chopped and added to salads and also used in many dishes specially in cooking mutton curry. The leaves of this plant are dark green and spiky with small pinkish white flowers. In some Indian homes they use this as a flower arrangement; they are placed where they cannot be brushed against. As a flower arrangement it is effective and it gives off a slightly pungent odour. Liver curry with orange and Corriander sauce is a delicious dish.

The medicinal value of Corriander is widely known in Sri Lanka. The early herbalists used Corriander not only as a tonic but also to cure indigestion and as a cure for heart ailments. Any chest pain due to indigestion or heart could be eased by taking Corriander as a tonic with a little bees' honey.

Herbal plants are also used for the making of perfumery extracts and even as cosmetics. In most eastern countries women care a great deal about long healthy hair. In ancient Ceylon seeing Long-haired women was considered a lucky omen. Long hair is one of the five characteristics in a beauty (Panchakalyanas). Taking care of the hair was not only a part of general beauty care but also a traditional event among the women folk. The hair oil, shampoo and perfume were made out of herbs.

The Shampoo was made out of the plants around the house such as Veralu (Ceylon Olive) or (*Elaeocartus serratus*), Welbebila (*Siba cordifolia*) lime and many other plants. Smashed Veralu leaves rubbed

on the head before a bath gives a smoothness and a gloss to the hair. It also oils the head and removes the dandruff while giving a healthy growth. Babila leaves boiled with uluhal (or dhill seeds) is used as a shampoo to clean the hair. This not only acts as a shampoo but also relieves headaches. Unripe lime cut in slices boiled in coconut milk with a few dhill seeds removes lice and dandruff.

Kohomba (*Margosa*) leaves are used as a pot herb and as an insect repellent. The refined oil is used in the manufacture of soap, cosmetics and disinfectants. Kohomba seeds well ground and rubbed on a head is used as a cure for an infected scalp.

The oil extracted from Nil Murunga (*Moringa oleifera*) is used as a perfumery oil. In many parts of Pakistan and India this oil is used to prepare cosmetics and as a treatment for hair.

In the interior villages there are trees which bear flowers with a fragrant smell. Sapu (*Michelia champaca*) is one of these. The Sapu flowers are used in Sri Lanka during religious occasions. But in India it is also used in the manufacture of perfume and hair tonics. In ancient indigenous medical books it is mentioned that the bark of this tree was used for skin diseases.

Kon (*Schleichera oleosa*) is a large shady tree. It has hard timber and is used for beams and agricultural implements. The seeds of this tree contain an oil which is known as Kon Tel. This oil is used as a hair stimulant and a cure for itch on the head. In India it is known as Kusum oil. It is used in cooking and also as liniment and a hair oil.

We find Na trees (*Mesua ferrea*) in our country. People use this tree mainly for its timber. But the oil extracted from the seeds is used for the making of perfumed soap. Penela (*Sapindus emarginatus*) is a moderately large tree known among the villagers as a plant used in domestic medicine. The juice of the bark and fruit is applied into the nose in cases of lockjaw. The seeds contain a semi-solid mass which is used as a substitute for soap. Clothes washed with this kernel give a fragrant smell and removes dirt completely. The seed kernel made into a plaster with vinegar is applied externally for reptile bites. The villagers use these seeds to clean heads infected with itch. They also clean jewellery with it.

Domba (*Calophyllum irophyllum*) is a common tree in many parts of Sri Lanka. Next to coconut oil, Domba oil is used to light lamps. It has a ritual value too. Domba oil is used as a medicine for rheumatic pains and is also one of the five kinds of oil known as "Pas tel". Domba seeds are smashed, made into a small bundle and steamed and used for fermenting the swollen joints of rheumatic patients. The oil of this seed is a very effective medicine for scabies. The seed burnt and ground with gingelly oil is applied on the scalp for skin eruptions and wounds caused by lice.

Ancient people always used local herbs as hair dye. Using such herbs protected their hair and preserved its natural colour.

Muruthonthi (*Lawsonia alba*) is well known among Muslims. They use the leaves as a cosmetic dye to colour the palms, soles and the nails. This plant produces the famous dye Henna which is used for dyeing the hair, beard, eye-brows and even teeth. It is said in "The Vegetable Products of Ceylon" by Fredris Lewis, that the Arabs used Henna not only to colour their beards but also to colour the manes and tails of their horses. It also says that the use of Henna is very old and there is evidence of its application in Egyptian Mummies.

The flowers being highly scented are used as floral offerings. In some parts of India Henna is used in dyeing cotton fabrics. The reddish brown colour it gives is known as Malagiri. On distillation the flowers yield an aromatic essential oil, which is used in perfumery and embalming bodies.

The common Pomegranate (*Delum*) tree has a similar valuable dye which many people are unaware of. The flower contains a tan and a floating dye. The stem bark is used for tanning and dyeing Moroccan leather. The root bark is used for making a jet black ink; this together with the rind and the fruit are used in the manufacture of hair dye.

If these natural herbal products are brought to light and used instead of synthetic products, most of the mysterious illnesses caused by them could be lessened.

PLANTS AS BEAUTY AIDS

Herbal plants are not only used as medicines, they are also used as aids for health and beauty. In my previous article I mentioned the care of the hair. In addition, plants sometimes found growing effortlessly in the back garden of our homes are also aids to beauty. Karavila (*Memodica charantia*) is not only used as a nutritious vegetable, but it is also a herb for skin diseases. Nursing mothers are fed with Karavila to increase the flow of milk. The leaves are used externally for skin affections of parasitic origin.

Karavila is also a very effective beauty aid. The leaves are crushed and the juice is massaged into the skull. It encourages the growth of hair. Loss of hair or bald heads are a common worry for many people.

Olinda, which is called Venbu in Tamil (*Avrus precatorius*) is a kind of herb used a great deal in local medicine. It is very effective in increasing the growth of hair. An oil prepared with Olinda seeds, together with sesame seeds and coconut milk is a very useful remedy for premature greying of hair and also increases the growth of hair.

In ancient Sri Lanka both men and women had long hair. They cared a great deal about the growth of their hair and the need for a healthy head. Hair washes and tonics were not imported. The herbal plants around us gave us all the aids to beauty. Nelli juice mixed with lime juice is an instant shampoo for the hair. It makes the hair lustrous. Tumeric or Kaha ground to a paste was used to wash long hair. This herbal plant is a well-known disinfectant. It cleans the skull and removes dandruff.

There are many decoctions used as washes and tonics. The decoction of Seenidda (*Acacia Concinna*) is an excellent hair wash. Instead of Seenidda, Lunuvilla could be used. This decoction promotes the growth of hair, kills lice and removes dandruff. The pods of Desaman or Jasminum prepared in decoction is very effective for cleaning the hair. Not only does it clean the hair but also gives a fragrant smell. The oil prepared from this plant is a very famous perfume in

India. Jasminum leaves are considered useful in skin diseases. Mohammedan writers attribute a great deal of value to this herb and say that it contains alcoholic properties in the leaves. An ointment prepared from this herb is used in skin diseases. To check premature loss of hair, the oil from the seeds of the Teak tree is massaged into the skin.

Kikirindiya (*Eclipta prostrata*) is a herb very frequently used in indigenous practice. It is an ingredient used in many decoctions for various diseases. In Sanskrit this is known as Kasaraja which refers to the growth of hair. This herb prevents the hair becoming prematurely grey. It cures diseases of the skin as well as those on the head. This herb is used both internally and externally. The juice of the leaves contains a dark bluish colouring matter and is used for tattooing as it leaves an indelible mark on the skin. A very useful hair oil is made with *Eclipta alba* or Ranwan Kikirindiya as the base. Hathaweriya (*Asparagus racemosus*) juice, king coconut milk and ranwan kikirindiya are all mixed together and exposed to the sun until the oil separates from the mixture. This oil is very useful for preventing premature greying of hair.

Care of the skin was an important part of beauty. Various kinds of herbal plants, barks, roots and flowers have been used as natural cosmetics instead of luxury creams. Sandalwood powder and saffron powder were used instead of soap. The bark of the Kekun tree was ground and rubbed on the skin for a better complexion. Kalanduru yams ground into a thin paste with lime juice and mixed with bees' honey was a very effective facial cream to remove black heads. Margosa leaves ground with raw saffron (Tumeric) is a good remedy to remove black heads, when it is applied as a paste on the face in the night.

Most women in the rural areas both in the past as now possess a naturally beautiful smooth skin. The reason for this is that they do not use soap. Plain water is the cheapest beauty aid.

The eyes are the mirrors of health. Brightness in the eyes shows how healthy you are and it adds to one's beauty. Cucumber is not only a vegetable used as a salad but it is also a herb that helps the kidneys. It cools the system. Cucumber seeds roasted and powdered and poured like coffee is administered to patients suffering from colic due to kidney infection. Thin slices of cucumber placed on tired eyes make them

sparkle and shine. Thin slices of Bandakka (ladies fingers) are also used for the same purpose.

Over-ripe tomatoes are sliced and used to give a gentle tap on the skin round the eyes. Wrinkles near the eyes are indications of age. Sometimes extra weariness creates these wrinkles. A few drops of bees honey applied on the skin, and gentle tapping of the skin with tomatoes helps to ease these wrinkles. Beauty-conscious women in harems used sapu flowers dipped overnight in water to wash their faces. Sepalika flowers fall in large numbers under the trees. They are not regarded as a useful herb, but these flowers dipped overnight in water are an effective deodorant. The common shoe flower leaves are ground and used as a lotion before a bath. Eating shoe flowers in salad form helps to enrich the complexion. The buds of shoe flowers are used as a decoction for invalids suffering from Rathagaya.

Herbal plants also did much for the care of the teeth. A shrubby plant known as Pila (*Tephrosin purpurea*) is used to brush teeth. The root of this plant whitens the teeth and makes the gums stronger. Mohammedan writers say that Pila is a holy plant and it is used for cleaning of the teeth. The Pila leaves given in the form of canjee is very effective in cases of Jaundice.

The Wata Erandu plant is a common plant used in the villages for the making of fences. The leaves are used to ferment rheumatic patients. The leaves are boiled and the infusion is used to wash the skin afflicted with scabies. The twigs are used to brush the teeth. It has a milky secretion which helps to harden shaky teeth and check bleeding gums. Roasted paddy chaff well powdered is also used to clean the teeth. Dry arecanuts are burnt and are used as a tooth powder among the villagers.

During the cold season people suffer from sore mouths. Katurumurunga leaves fried in gingelly oil with pieces of liver is a delicious dish and a useful remedy for sore mouths. Gingelly oil should also be applied round the lips every morning and evening. The soles of the feet crack during the cold season. This is mainly due to a heaty constitution. It is also caused by dry skin. Heated cow ghee rubbed daily on the soles helps to heal them.

If it is an acute problem stale rice ground with Rathmal pods and Komarica ground with cold water helps to heal the soles. The cleanliness of the people during the past was looked after by the use of herbal plants found at our door steps. If we pay a little more attention to these plants we shall be doing a great service by contributing our natural remedies to the vast herbal research work that is going on in other countries.

HERBAL PILLOWS

Herbal pillows were not new to the people of Sri Lanka. They used them for many purposes. Often they were used for headaches. The headache could be due to many reasons such as worry, imbalance caused by sun stroke, doshas, etc. In Ayurveda there are several treatments for headache. There are the nasya inhalations (Medicinal drops put into nose), and hisagallum (application of oils on the head). The herbal pillow is another treatment. This treatment died a natural death until the revival of interest in herbs in the West.

Many kinds of herbal plants, leaves, roots, seeds and flowers used for this purpose. Savandara or *Vetiveria zizanioides* (or *Usira* in Sanskrit) is one of these plants. This variety is very cooling and refreshing. It has a pleasing smell. The roots are dried and finely chopped, then stuffed into a pillow and used for headaches during fever.

Sudu Handun or white sandalwood made into a paste can be applied on the forehead for headaches. This weed was pounded and stuffed into pillows which were then used as herbal pillows. It has a cooling fragrance that puts you to sleep almost immediately.

Dried roots of *Iramusu* or *Hemidesmus indicus* (better known as *Sassaparilla*) were chopped and made into a pillow and used for rheumatism and headaches. This root contains a property which purifies the blood and cools the system.

Sometimes headaches are due to hay fever or catarrh. *Kollankola* (*Tamalano* in Sanskrit) leaves were stuffed into a pillow and used not only in cases of hay fever, but also as a remedy for the unconscious patient who has been bitten by a snake. In India and in Sri Lanka the patient was made to chew this plant and it was applied on the wound. Later in India a tincture prepared with this herb was used by Western practitioners. Botanically it is known as *Pogostemon heyneanus*.

Kohomba or *Margosa* leaves as well as the flowers were used as herbal pillows for headaches due to contagious diseases like measles and chicken pox. *Pawatta* or *Adathoda* leaves were also used in herbal

pillows for headaches when it occurred along with a blocked nose.

The dry leaves of *Nika* or *Vitex negundo* were stuffed into a pillow and the patient with migrains was made to rest his head on it. The *Nika* leaves balance the watha and kapha or the phlegm.

There were various varieties of flowers used as herbal pillows. The stamens of *Namal* or *Mesua ferrea* and *Nelum* (lotus) were used for herbal pillows. White 'Dasaman' or *Jasmin* flowers were dried and made into herbal pillows. These are believed to bring peaceful sleep.

The *Sepalika* or the *Coral Jasmine* is a common and a popular garden flower. These flowers bloom in the night and fall to the ground by morning. They are highly scented. In the past people collected these flowers and dried them for stuffing herbal pillows. They are believed to help sound sleep.

The herbal pillows have come into use once again. In England herbal pillows are very much in demand; many are found in Japan and other countries. We take many strong drugs to calm our headaches and keep on taking stronger drugs which are harmful. Is it not better to sleep on a herbal pillow than taking sleeping tablets which could be injurious to one's health.

HERBAL WINES AND BEVERAGES

Herbs were the foundation of the earliest form of medicine for thousands of years depending almost exclusively on flowers, barks and leaves. The scientists of the 20th century make expeditions to the remotest parts of the world in search of medicinal herbs. Herbal medicines heal diseases rather slowly, in a natural way. They are like health foods. They are less complicated in their side effects than modern drugs. They could be taken not only as decoctions but also in the form of wines and beverages.

Wines prepared from herbs and flowers, merit attention. Their taste reflects, however slightly, the aroma of whatever plant they are derived from. Many have tonic properties as well.

When harvesting plants, that are used for making these wines, a certain amount of care should be exercised. When the herbs are gathered preferably a dry, sunny day should be chosen. In general "flower wines" are best made from fresh flowers, though dried petals could be used. In the case of other herbal wines, it makes little difference whether the ingredients are fresh or dried.

Normally, all wines must be allowed to ferment, and the best results could be obtained by using an all purpose wine yeast. For sweetening, ordinary white sugar should be used. Wine can be left to ferment quite happily in a warm place and stored in cloth-covered bottles, or better still in a narrow-necked jar, fitted with a fermentation lock. Once the sedimentation process is over, the wine has to be filtered into bottles. If it is still not clear, the remaining cloudiness will gradually settle in the form of sediment in the bottles. Without due care and caution, these wines could easily turn into vinegar or worse.

Wines can be made from fresh wild roses, which grow in hedges. The pink and white roses are fragrant, and the calyx of the flowers is one of the richest natural sources of vitamin C (Fresh or dried flowers can be used for this purpose).

This wine is known as Rose-Petal Delight.

The recipe is as follows :

12-15 cups rose petals, 3 lbs. sugar, juice of two lemons, 1 ounce yeast and one gallon water.

Pull out all the petals and place them in a suitable container. Pour in two quarts of boiling water and leave the mixture to infuse, with a cover over it, for 10 to 12 hours.

Melt 1½ lbs. sugar in a quart of boiling water and when cold add this syrup to the original infusion. Then add the yeast and lemon juice, and leave for seven days to ferment. Then boil the remainder of the sugar in a quart of water and when cold, add it to the fermenting mixture. After two days strain the fermented liquid once again and leave it until it ferments no more.

This is a delicious drink to refresh you during the hot season. It is said that this wine dispels depression. Some people believe that only red roses should be used for this preparation as it helps to mend a broken heart! Even garden roses are good for this, especially the white ones. Rose petal wine fortifies the head and the brain. It is also effective for catarrh, feminine ailments and stomach disorders.

Rose Calyx Wine

Five pounds matured rose calyxes, 3½ lbs. sugar, juice of one orange, one ounce yeast, one gallon water.

The crushed or finely-diced calyxes are left to infuse overnight in the usual two quarts of water. Add the yeast and sugar as before, and strain after seven days of fermentation. The rest of the sugar can then be added and fermentation allowed to proceed. This makes a delicious wine, and it can be used for feminine ailments and stomach disorders.

The addition of lemon juice compensates for the absence, in flowers and herbs, of the acid so essential for fermentation. Fruit-based wines need no such addition, as the natural acid in the fruit is quite sufficient.

Corriander Wine

Corriander leaves resemble parsley, and the flowers are small, pinkish and white. The Corriander plant has a peculiar smell, and many people dislike it. But when prepared in the form of wine it is quite tasty, and is an efficacious remedy for painful indigestion.

Preparation of the wine follows the procedure given above. It is a fine tonic for the heart. Among some Arab tribes Corriander is highly esteemed as a medicine for women. It regulates menstruation and eases labour pains.

From Daisies

So common is our friend the Daisy that no description is needed. Daisy means the "day's eye" and it refers to its habit of closing its petals at night. In this way its stigmas are fertilized through contact with the pollen at the yellow centre of the flower.

Daisy wine has an unusual taste, but is nevertheless very pleasant. To make the wine the same instructions for other flower wines must be followed.

Use two quarts of Daisy heads (one quart equal to two tea cups of Daisy heads), half gallon water, 2 lbs. sugar, juice of one lemon and one orange and 3/4 oz. yeast.

This wine improves circulation and so helps those who feel cold acutely or suffer from defective circulation caused by damp or cold. It helps to soften the walls of the arteries and makes them more flexible.

HERBAL TEA

The ancient science of Ayurveda teaches how one can be in perfect health and live a long life. It is a mistaken idea to believe that Ayurveda is merely a curative medical system for the treatment of the sick. On the contrary, this aspect is only a small part of this science.

The rest of Ayurveda deals with the maintenance of one's health and the ways and means to lead a longer and healthy life. Ayurveda makes the prevention of disease one of its ideals.

Man's first medicine was herbal. Herbs grow all round us both in the country and the town. Few of us realise how valuable are the properties of these common weeds. If one looks more closely in the garden, field or forest one could see the richness that our country possesses in her natural vegetation.

Ayurveda pays a great deal of attention to man's daily diet. Almost everyone who lived in ancient Sri Lanka knew something about the curative value of herbs. At least one item of diet was a herb.

Long before tea was introduced into Sri Lanka, people were used to drinking herbal tea. Even today, we still find herbal plants boiled and brewed and taken as a drink. Some of the most common are Polpala, Ranavara and Beli flowers. These drinks are very popular in Kataragama, Anuradhapura and many other religious places situated in the dry zone.

Gotukola dried and cut into small pieces can be poured like tea. This is a very popular drink among many. It is a remedy for worm diseases in children. It is a very common plant which could be grown in pots as an indoor plant.

This drink enriches the appetite in children. It is also a very effective herbal tea for those who suffer from hay fever and Catarrh. Mukkunuwenna (*Alternanthera sessilis*) is a common weed used in curry form. This weed is also used as a drink, prepared in the same form as Gotukola. This is a herbal tea that cools the system and clears urinary complaints.

Asswanna (*Alysicarpus Vaginalis*) is another herb which is

used often in Ayurveda. Prepared as tea, this helps the balance of unbalanced watha, and helps to reduce rheumatic pains.

In rural areas, Buddhist monks drink more of these herbal teas than the common tea. In the dry zone, the Myla flower (*Woodfordia fruticosa*) is used as a herbal tea. It is a delicious drink. This herb is largely used in indigenous medicine. In Sanskrit it is known in Angi-Jvala which means fire flame. It is a remedy against dysentery and diarrhoea. This herbal tea reduces flatulence.

There is a great deal of influenza in the country and children often suffer from a heavy nose and painful coughs. Adathoda flowers dried or fresh poured as tea is a very effective remedy for this. Add sugar candy (preferably Thal Sookiri) instead of sugar.

Aruda or Rue (*Ruta graveolens*) is a native plant in Europe. Rue was then used as a protection against poison and as a preventive for epilepsy and vertigo. In Sanskrit it is known Anganapriya, a herb dear to women.

It was a common practice among mothers to heat a few crushed leaves, in a teaspoon full of gingelly oil or coconut oil, and to rub it over the chest and head, for infantile catarrh. It is widely cultivated in the hill country. It has a pungent smell and bitter taste, and is called the herb of grace.

Among the Muslims it is highly revered, for it was blessed by the Prophet after it had cured an illness. It is a very potent herb, and should be taken very sparingly. It cures many mental disorders. It improves the condition of the veins and arteries and will cure muscular cramps.

A teaspoonful of Rue leaves infused in three quarter pint of water will give you a bowlful of herbal tea.

Take a dessertspoonful of this herbal tea before retiring to bed. It reduces high blood pressure and sciatica and many-forms of rheumatism. Sometimes you find that this herbal tea upsets your stomach. When this happens avoid taking it for a time and continue later.

It has the rare quality of acting as an anti-aphrodisiac in males, but is quite the reverse in females according to Dr. John Attygalle's book "Sinhalese Materia Medica".

WATER AS A HEALER

Water is very important to life and many names are given to it. In Sanskrit it is called Megha, Jalam, Meghapuspa and Jeevan (meaning life). Water is good for the heart, pleasing to the eye, stimulating to the intellect, and of course it is cool.

The authors of Ayurveda texts caution that water should be used carefully, in a measured way, as appropriate to the seasons and one's constitution. Otherwise it can be 'poison' instead of nectar.

Ayurvedic texts state that water flowing through yellow soil is bitter. The great sage Athreya says "Water is both celestial and medicinal". There are two kinds of water—rain water and spring water. It is explained how one can distinguish river water from sea water. A clean white cloth is tied to some sticks and a vessel is placed under it to collect rain water. A handful of clean white boiled rice is dropped into the vessel; if the water remains colourless it is river water, otherwise it is sea water.

River water is very good for children. It halts vomiting and quenches thirst. It also cleans the collection of tiny stone-like particles of uric acid, calcium oxalate or phosphates in the urinary system. River water balances the three doshas.

Sea water increases pressure and phlegm or kapha. It irritates the body and causes skin diseases in children. It also reduces one's strength and is harmful to the body. Rain water purifies sea water during the months of Aswin or Wap (between the full moon of October and full moon of November).

Rain water is classified into four groups as Dhara Jala, Kara Jala, Thosara Jala, Haima Jala. Dhara Jala contains minerals. It balances the three doshas. It is cooling, good to the taste, promotes children's health, increases the appetite and is said to increase concentration. It also relieves weariness, giddiness and improves the health of invalids.

Kara jala is pure and gives strength. This is torrential rain

accompanied by thunder and lightning. It imbalances Kapha or phlegm but balances pitha.

Tusara jala is rain water with dew; it is harmful to the human body and plants. Though it is cool it causes chest pains. It also can cause throat diseases.

Halma jala is heavy. It balances the vatha, pitha and raktha and helps blood circulation, heals giddiness and diseases of the head. It also heals wounds.

Further there are differences due to the source of water, such as river water, spring water, well water, stream water, pond water, lake water and water from a waterfall. The different curative values of these types of water are mentioned in Ayurvedic texts.

At present water is considered a carrier of disease. Water pollution as such was not known in the past. There was only pure and impure water. The ancient Ayurvedic books mention how water can be purified. Jewels like diamonds, gomedha and garnet were used for the purpose. As they were not chemicals they were not harmful to health. Charcoal, ingini or clearing nuts (*Strychnos potatorum*) were other ingredients used to purify water. Ingini was rubbed round the inside of an earthen pot and muddy water was poured into it. It has the quality of pressing down all suspended matter and making the water clear and fit for use.

The following advice culled from the old texts on water is worth bearing in mind. Many present day illnesses are probably due to the neglect of such "scientific trifles":

1. Avoid cold water during indigestion. Drink it lukewarm.
2. Water is indispensable both in health and in disease.
3. It is harmful if used indiscriminately, but should be used in measured quantities according to the season etc.
4. Over-use especially in fevers, leads to the increase of Kapha, Ama, thirst, heaviness, nasal catarrh and indigestion.
5. Invalids should use medicated water for drinking purposes.
6. Except in the hot seasons, water should be used sparingly for drinking, even by healthy people.

7. Water drunk before meals leads to the lessening of appetite. It also leads to loss of weight, but is useful for overweight people.
8. Water drunk during meals helps digestion and leads to a well balanced and well proportioned body.

CARE OF MOTHER AND CHILD

The entire Ayurveda system is divided into eight parts, beginning with "Salya" or surgical treatment and ending with "Vijikarana" or aphrodisiacs. In this division the fifth group is "Kumara Bhritya" or the treatment of infants and the puerperal state.

The science of Ayurveda pays great attention to the pre-natal and post-natal state of the mother. Don'ts and Do's for such mothers are very clearly described. Every mother has to prepare for a child and the anxiety that the mother develops brings a wanted child to the world.

From the first day of conception the mother has to be pleasant, soft spoken and kind. She should avoid rough, crude and angry words and try to be as calm as possible. Her mind should be free from mental worries and she should keep the company of educated, collected and religious people. Her clothes should be in soft colours and she should be well dressed and wear ornaments.

There are many medicines prescribed in Ayurveda for the disorders of pregnancy and child birth. The pregnancy has to be well planned so that the intervals are between two to three years. The main reason for this is feeding.

In the ancient days breast feeding mothers were well cared for and looked after. The medical advice was that any sexual contact could reduce the milk; and the husband had to follow a strict period of quarantine. There is the old Sinhala which says "Pilenidanawa". What this means is that the husband sleeps outside in the verandah or in a section outside the main house. This system of family planning was enforced not through education, but through social customs and traditional culture.

The nutrition that we speak of today was not known by them, but the nutrition they knew was natural food. All nursing mothers had a special diet, based mostly on natural herbal food. They were given unpolished rice, leaves which were mostly bitter and plenty of milk. These foods enriched the mothers diet, Kuringan, Katurumurunga,

Murunga and Kiri Anguna are some of these nourishing foods. They ate fresh water fish specially the "loolas" and "thithayas".

There is a valuable herb recognised by the Pharmacopoeia of India, used as a remedy for nursing mothers to increase their milk. This tree is found in abundance in rural areas. In Sinhalese we call it "Rukkattana"; in Sanskrit it is "Aaptaparini". Botanically it is known as *Alstonia scholaris*.

In the Pharmacopoeia of India it is described as a tonic, astringent, and a drug that kills intestinal worms. It is said to be a powerful galactagogue (promotes breast milk). This herb has been used by Ayurvedic physicians from the time of Susrutha. It is used with other ingredients like Rasakinda (*Tinospora cordifolia*), Kohomba (*Asadirachta indica*), Karagas (*Betula Bhojpatra*) in equal quantities of about 300 grains and boiled into a decoction, for fever, dyspepsia and skin diseases. It is interesting to note that the natives of the Philippines have been using it from time immemorial for malignant, remittent and intermittent fevers in the form of a decoction made out of the bark.

Rukkattana bark in the form of a strong decoction was administered instead of quinine to treat the worst forms of malarial fevers. In Pakistan the juice of Rukkattana leaves with fresh ginger juice is given to women after child birth. This helps to contract the uterus and to encourage a free discharge of lochia.

There are many effective remedies in Ayurveda for post-natal treatment. Ayurveda teaches not only the care of the nursing mother but also the testing of breast milk before it is fed to the baby. If the milk doesn't dissolve in water and floats on top, it is good. The colour of the milk should be off white. When the nursing mother is hungry or afflicted with sorrow or tired, pregnant or subject to fever, she is advised not to feed the child. If she suffers from diarrhoea then too, she is advised not to feed the baby.

When the baby is given any medicine the feeding has to be done after a few hours. In Ayurveda the mothers are advised to select any other nursing mother to feed the child if the mother hasn't enough milk. These women are known as "Dhathri".

There is a long description given in the Susrutha as to the way

in which such a woman can be selected. In Buddhist texts too it is mentioned that after the death of Prince Siddhartha's mother the baby Prince who was only seven days old was nursed by a "Kiri Mawa" or a selected nursing mother.

Another very important factor in ancient child care is that the child is kept in very close contact with the nursing mother. As soon as the infant is born it is kept near the mother, so the child gets the necessary warmth from the mother's body. This physical contact of the mother and the child increases the love and affection for the child and that brings an easy flow of milk. It also gives the child the needed warmth and strength and makes it feel secure.

The great ancient Ayurvedic compilations give vivid descriptions of such traditional, nursing and child care methods which are very healthy for the mother and the child. These methods should be followed by our young mothers of today.

KOLA KANDA

Kola Kanda is a kind of porridge made of cereals mainly raw rice, and coconut milk as the liquid, with leafy vegetables. It is not generally prescribed as a healing medicine, but it is considered an important part of the morning meal.

In ancient Sri Lanka it was the special food taken before solids were taken for breakfast. The rice and the coconut supplied the carbohydrates while the leaves supplied the vitamins and the minerals. Generally more than one kind of leaf was not added to the Kola Kanda.

Today we consume many kinds of food for their taste rather than their nutritious value. Sometimes these foods are actually harmful to the body. Ancient food habits on the other hand emphasised the importance of taking a balanced, nutritious diet.

Much of the knowledge of our forefathers, of the right kind of food to eat was derived from their study of Ayurveda. The main theme in Ayurveda is keeping the body healthy, and preventing the onset of disease by sane and rational living. This is something we have forgotten in the modern world.

One of the methods chosen by our ancestors to keep healthy was in the choice of food. The selection of food was naturally dependent on seasonal and environmental changes, and the requirements of individual constitutions.

In Ayurveda canjee or rice water has an important place. Among the many kinds of canjee are Polkiri Kanda, Lunu Kanda, Kiri Kanda and Kola Kanda. Herbal Kanda is also prepared with appropriate herbs in order to cure certain illnesses; this kanda is called Behet Kanda or Medicinal Kanda. Behet kanda is not only given orally to the patient, but sometimes the patient is made to soak in a pool of kanda.

In such instances kanda is made out of the barks of herbal trees and applied externally. This is particularly so for the healing of fractures. In all these cases the main ingredient is raw rice, along with coconut milk.

How to Prepare Kola Kanda

Boil raw rice. Grind together some scraped coconut and the green leaves. Squeeze out the milk and leaf juice. Add to the rice and keep stirring the kanda when it is on the fire and add salt to taste.

Kinds of Kanda

Gotukola or *Hydrocotyle Asiatica*, is called *Mandukaparni* in Sanskrit and in Tamil it is known as *Vallarai*. This leaf is used frequently in indigenous medicine and it is a diuretic and alternative. *Gotu kola* is said to improve the power of the memory. It is a general tonic and relieves mental fatigue. It induces sound sleep. It can be taken regularly when a person suffers from sinitis, catarrh, bronchitis, diabetes, epilepsy. It is also a healing agent for eczema and other skin conditions, when it can be used both externally and internally.

It is given as a home remedy to children when they have bowel problems and when there is vomiting due to the presence of intestinal worms. It cures hoarseness, gives relief in urinary and rheumatic complaints. It is a plant which has a cooling effect on the body when taken regularly.

The other common leaf used in Kola Kanda is *Polpala*, which is botanically named *Aerva lanata*. In Sanskrit it is *Pashanabhedhi* and in Tamil it is known as *Tengappu keerei*.

It is a small plant, and generally it has an erect stem, its branches are covered with cottony hairs. Its flowers are minute and dense and resemble scraped coconut. This is the reason why originally it was called *Polkudu pala*.

Polpala is effective in the treatment of cough and indigestion and is specially used in the treatment of diabetes and urinary troubles. It is a diuretic and is used as an antidote in cases of arsenic poisoning.

In Sanskrit *Polpala* has another name *Nagajihva*. This name refers to the fact that the tap root resembles the tongue of a naga or cobra. It is used either by itself or in combination with other herbs to treat snake bites. *Polpala* can also be made into paste with cold water and used as an application for skin eruptions. *Polpala* can be cooked as vegetable.

It could be dried and preserved and used to make herbal tea.

Penela wel or *Cardiospermum halicacabum* is a cheap and well known plant. It is very common in the low country and generally in the tropics. In Sanskrit it is called *Jotishmati* and in Tamil it is known as *Mudukottan*.

It is a delicate smooth wiry climber. The roots and leaves are commonly used in medicine. A decoction made of the roots is given in cases of bleeding piles.

The leaves are used as an infusion for rheumatism, nervous diseases, haemorrhoids, and chronic bronchitis. The juice of the leaves is put into the ear for ear ache. The '*Bhavaprakasa*', a well known Ayurvedic book mentions a medicinal preparation with *Wel Penela* leaves for delayed menstruation. It is also a laxative.

Wel Penela leaves are used externally for painful swellings. Bone-setters and Ayurvedic physicians treating fractures make use of the plant in their remedies. It relieves pain caused by sprains and contusions.

Kola Kanda with *Ira Musu* leaves : The botanical name is *Hemidesmus indicus*. In Sanskrit it is called *Sariva Anantamuli* and in Tamil it is known as *Nannari*. This herb is a diuretic. A fermentation with its leaves relieves rheumatic pains and it cures boils since it is a blood purifier. Its effect on the human system is cooling; so it can be taken as a cool drink.

Hatawariya or *Asparagus racemosus* : In Tamil it is called *Kilavari*. It is cooling, a diuretic, a tonic and an aphrodisiac. Apart from its use in Ayurvedic medicine, its roots can be used as a preservative. It is effective in the treatment of menstrual disorders and is said to help in overcoming barrenness in women. It is used in remedies for urinary complaints.

Mukunuwanna, botanically known as *Aternanthera sessilis*, *Pannankami* in Tamil, is a leafy vegetable which is eaten very often in Sri Lanka both by the rich and the poor. It is used often in the preparation of medicinal oils. It can be made into a hair wash. In the treatment of mental patients a plaster of *Mukunuwanna* leaves is applied on the head for its cooling effect.

It is very highly recommended for eye diseases.

Among the ruins in Anuradhapura we see gigantic Kola Kanda oru or boats made of stone. Kola Kanda was compulsory in the menu of kings, monks and ordinary people in ancient Sri Lanka. After a full night's chanting of pirith the monks partook of Kola Kanda, the first thing in the morning.

Kola Kanda keeps the system cool and it promotes energy. It helps to balance the imbalance in the three forces vata, pita, kapa. Kola Kanda is usually taken with a piece of jaggery. In those long ago days on mornings when Kola Kanda was not prepared diyabath was made. Boiled rice left over from the previous night is left to soak in cold water.

In the morning chopped onions and green chillies are added. A little coconut milk can be added for taste along with salt. This is a very effective remedy for sore mouth.

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About the Author

The Late Dr. (Mrs.) Seela Fernando was an indefatigable crusader for the resurrection of Ayurvedic medicine. She was the daughter of an Ayurvedic physician, Vellun Fernando and his wife of Devolapola, Veyangoda in Sri Lanka. She received her first education at the local temple school and later studied at St. Mary's College, Veyangoda. She came under the influence and tutelage of her Ayurvedic physician father, who was an eighth generation physician in his family. She studied for a BA degree at the University of Peradeniya, but continued her medical education under her father. She then practised medicine with her father and later as an independent Ayurvedic practitioner.

She promoted Ayurvedic medicine through newspaper articles, lectures, seminars, radio and TV discussions. She tried to impress on Sri Lankans that herbs have healing power and that they cured illnesses without side-effects. Ayurveda, she pointed out constantly, meant long life.

In her column in the 'Daily News' (the premier morning daily in Sri Lanka) called 'Home Remedies', she advocated these ideas. The present volume is an edited and expanded compilation of those articles which appeared in the 'Daily News'. She was first able to bring out the book with the support of FAO.

Her zeal for Ayurveda was boundless. She gave free service at a clinic at Henemulla, in one of the poorer areas of Colombo.

As a social worker, she participated in the activities of the Red Cross, the Lions, the Sarvodaya movement, Sri Lanka's largest social and community development organisation, and the Quota club. She was an active member of the Shishydhara Samiti, a society which helped needy students. She was an active member of a couple of temple sabhas, and engaged in religious and social activities around the temples.

She kept open house and was an Ayurvedic practitioner in the traditional mould. Patients became her friends, often stayed the night over to be looked after by her. She liked people, and liked people to like her.

WENIWAL

The picture on the front cover of the book is that of the Weniwal Creeper. Among the Sinhalese it is also known as 'Bangeta', possibly because ropes are made of this creeper to tether cattle.

Its botanical name is *Coscinium fenestratum* and in Sanskrit it is called Daruharidra. In Tamil it is known as Mara-Manjal, while in English it is called Tree Turmeric.

This creeper is found in the maritime regions of Sri Lanka and in many parts of India. Its chief use is as a remedy against tetanus. It is also used as an ingredient in many medicinal preparations, churnas, pills and kalkas.

It is the stem of this creeper that is used in Ayurvedic medicine. In malaria and other fevers it is as valuable remedy as quinine. It is used as an infusion.

It is also used in the treatment of diarrhoea in both adults and infants.

In jaundice and skin diseases, it is administered as an infusion, the bitter alkaloid in Weniwal is very effective in the treatment of bleeding piles and in cases of excessive menstruation.

It is a blood purifier.

Among its many uses, it can be included in the treatment of snake-bite. It is used as an antidote in the form of an infusion.

Scientific examination shows that this plant's chief constituent is herberine, a bitter alkaloid.