#### Tropical Agricultural Research & Extension 10, 2007

# A Review on Medicinal uses of Weeds in Sri Lanka

E.R.H.S.S. Ediriweera

Department of Nidana Chikithsa (Diagnosis and Treatment), Institute of Indigenous Medicine, University of Colombo, Rajagiriya, Sri Lanka

Accepted 30th August 2007

### ABSTRACT

Avurveda, the 'Science of Life' is a system of treatment for promoting health, prevention and curing of illnesses. In Sri Lanka, Ayurvedic and traditional physicians treat patients successfully using herbs and other natural resources. Some of the herbs used to prepare medicines are considered as weeds by agriculturists. They generally advise farmers to destroy these weeds in order to obtain a better cash-crop harvest, with out realizing the medicinal value and uses of these plants. Though many of the farmers have quite a good knowledge on medicinal value of these herbs, in order to get a good harvest from their cultivation, they generally destroy these plants. Some of the farmers do not have any knowledge on medicinal value of weeds. Aim of this study is to make the society aware of medicinal values of many weeds which grow naturally, without any effort or outlay of money from the farmers, and to protect and propagate planned cultivation of such weeds. This would make many highly useful medicinal plants freely available to the public while providing a source of an additional income to the farmers. In the long run, with proper planning and support, the growing and marketing of medicinal herbs which are currently categorized as weeds could become a very good source of income to the country, while providing an additional, easily available source of natural medicines to the populace. More over such herbs could be made use to serve as live ground covers in cultivated fields. Possible hazards of herbicides could also be minimized with exploitation of such weeds.

Keywords: weeds, medicinal uses

# **INTRODUCTION**

A weed in a general sense is a plant, usually wild or feral, that is commonly considered to be a nuisance in a garden, lawn, or other agricultural development. More specifically the term is often used to describe plants that grow and reproduce aggressively. Weeds may be unwanted because they are unsightly, or because they limit the growth of other plants by blocking light or using up nutrients from the soil. The term weed in its general sense is a subjective one, without any classification value, since a plant or herb is not a weed when growing where it belongs or is wanted. Some weeds are called, "beneficial plants or herbs" as they are edible, use for food or herbal medicine. Other advantage of such beneficial herbs may be the keeping away of some insects pests of crops.

The Ayurveda system of medicine was first taught and practiced by the ancient Sages of India over 4000 years ago. It is a highly effective and advanced method of treatment with a deep insight to the root causes of ailments and its value or the effectiveness has not diminished with the time. In fact, more and more people are becoming interested in Ayurveda nowadays, worldwide.

Sri Lankan Traditional Medicinal and Treatment Methods are quite similar to the Ayurvedic methods; but have many Indigenous herbs, compounds and even techniques integrated as well. We believe that these have been developed, practiced and even improvements added on from time to time, since the country was inhabited. The Traditional Physicians of Sri Lanka use a wide variety of herbs to prepare various medicines for different ailments. Some of the valuable medicinal plants used therein are considered as weeds by agriculturists, from their focal point of view. Exploitation of such herbs is also beneficial as they conserve soil by serving as a live ground cover in crop lands. Doing away with chemical weed control also cause to minimize possible hazards of herbicides on humans, animals and environments.

#### **Data gathered**

taken to make the world

This study was undertaken to make the world understand the value of weeds and to persuade them to protect and propagate the cultivation of weeds with due consideration and proper planning.

### Table 1: Medicinal uses of weeds

Data submitted here was gathered from local knowledge on Ayurvedic and traditional medicine, research work carried out by the author on *Scoparia dulcis*, olla leaves and from textbooks. According to this study, some of the weeds are used singly or as an ingredient of compound medicines, in Sri Lanka to cure several diseases as given in table below.

Botanical name And Family	Sinhala name	English name	Part used in medicine	Indication	Prescription
Abutilon indicum (Malvaceae)	Beheth Anoda	Indian abutilon, Indian mallow	Leaves	Haemorroids	480 g of fresh leaves of <i>A. indicum</i> boiled well in 7680ml till it turns to 1920ml. The patients suffering from haemorroids made to dip the buttocks and anal area in this decoction for about half an hour and it will help to reduce haemorroids.
Acalypha indica (Euphorbiaceae)	Kuppameniya	Indian Acalypha	Entire plant	Bronchial Asthma	120 g of leaves of <i>A. indica</i> to be pounded well. Juice is extracted by squeezing and water is added to make the final volume 120ml. 10 ml of this ex- tracted juice is given to patients suffering from Bronchial Asthma.
Achyranthes aspera (Amaranthaceae)	(Gaskaralhaba	Prickly Chaff- flower	Entire plant	Haemorroids	Entire plant of <i>A. aspera</i> is cut into small pieces, pounded well with scraped coconut and water added. Juice is extracted by squeezing. Then, a handful of washed rice is taken; sufficient quantity of water is added and cooked so as to obtain a Chyme. Aforesaid extracted juice is added to this Chyme and heated till it boils and serve haemorroids patients for breakfast.
Aerva lanata (Amaranthaceae)	Polpala	Polpala	Entire plant	Dysuria, Rena Calculi	160 g of dried entire plant of <i>A. lanata</i> is boiled in 1920 ml of water until it is reduced to 240 ml. Given twice a day to reduce dysuria and to expel renal calculi
Alternanthera ses- silis (Amaranthaceae)	Mukunu- wenna	Dwarf copperleaf	Entire plant		The patients with parkinsonism are adviced to use s <i>A. sessilis</i> in a form of vegetable .It also helps to promote vision.
Alysicarpus vaginalis (Fabaceae)	Aswenna	Alyce clover, Buffalo clover,	Entire plant	Renal calculi	60 g of dried entire plant of <i>A. vaginalis</i> is boiled in 1920 ml of water until the final volume is reduced to 240 ml. given twice a day in treatment of renal calculi.
Amaranthus spino- sus (Amaranthaceae)	Katutampala	Spiny amaranth, Thorny amaranth.	Leaves and Stem	Obesity	Leaves and stem of <i>A. spinosus</i> are prepared as a vegetable and given to reduce obesity.
Amaranthus tricolo (Amaranthaceae)	rSudu tampala	Joseph's coat	Entire plant	Menorrhagia	20 g of <i>A. tricolor</i> is ground into a fine paste. This paste is mixed with 120 ml of cow's milk, 7.5 gm of candy sugar and 10 ml of Bee's honey and given patients suffering from menorrhagia.
Amaranthus viridis (Amaranthaceae)	Kura tampala	Pigweed Slender amaranth	Roots	Oedema	120 g of fresh roots of <i>A. viridis</i> are boiled in 1920 ml of water until reduced to 240 ml and given twice a day to reduce oedema and also used as a diuretic.
Asteracantha longifolia (Acanthaceae)	Neeramulliya	Hygrophila	Roots	Dysuria Burning sensa tion in Mic- turition	60 g of dried roots of <i>A. longifolia</i> are boiled in -1920 ml of water until it is reduced to 240 ml and given twice a day to reduce oedema, burning sensa- tion in micturition and renal calculi.
Bacopa monnieri (Scrophulariaceae)	Lunuwila	Thyme leaved graticula	Entire plant		Entire fresh plant of <i>B. monnieri</i> is cut into small pieces, pounded and juice is extracted and final volume is brought to 120ml by adding little water. This extracted juice is given in the morning to cure epilepsy and to improve memory power.

12

**OBJECTIVE** 

Tropical Agricult	ural Research &	- Extension	10, 2007
-------------------	-----------------	-------------	----------

Botanical name And Family	Sinhala name	English name	Part used in medicine	Indication	Prescription
Barleria prionitis (Acanthaceae)	Katukarandu	Baleria Porcupine flower	Entire plant especially Roots and Leaves	Fever	120 g of fresh leaves of <i>Barleria prionitis</i> are pounded and juice is extracted by squeezing. 120 ml of extracted juice is given in fever. 60 g of roots of <i>B. prionitis</i> are boiled in 1920 ml of
				Neuralgia	water until the final volume become 240 ml. 20 ml of this decoction is given twice a day in neuralgia.
Boerhavia diffusa (Nyctaginaceae)	Pitasudupala	Red spiderling	Roots	Dysuria Burning sensation in micturition	60 g of roots are boiled in 1920 ml of water until the final volume becomes 240 ml and decoction is prepared. This is given in dysuria, oedema and burning sensation in micturition.
Cardiospermum halicacabum (Sapindaceae)	Welpenela	Balloon vine	Entire Creeper	Aphrodisiac	Entire creeper of <i>C. halicacarbum</i> are heated on a pain with red onions and ghee till it is cooked and given as an aphrodisiac medicine <sup>1</sup> .
<i>Cassia</i> occidentalis (Fabaceae)	Penithora	Coffee Senna	Leaves	Worm infestations	120 g of leaves of <i>C. occidentalis</i> are boiled in 1920 ml of water until the final volume is reduced to 240 ml and given to patients suffering from worm infestations.
<i>Cassia tora</i> (Fabaceae)	Pethithora	Foetid Cassia, Sickle Senna	Leaves	Cough dermatitis	120 g of leaves of <i>C. tora</i> are boiled in 1920 ml of water until the final volume reduced to 240 ml and given to patients suffering from cough and dermatitis.
<i>Centella asiatica</i> (Apiaceae)	Gotukola	Indian Pennywort, Pegaga	Entire Plant	Increase memory power	Entire plants of <i>C. asiatica</i> are pounded with scraped coconut and juice is extracted. Handful of raw red rice is cooked with water till it turns to a thick gruel. Extracted juice is mixed with this gruel, it is called "Gotukola Kenda" and given to drink daily to improve memory power.
<i>Cleome viscosa</i> (Capridaceae)	Ranmanissa	Asian spider flower	Entire Plant	Headache	Leaves and pods of <i>C. viscosa</i> are ground together into a fine paste and applied over forehead to reduce headache.
<i>Clitoria ternatea</i> (Fabaceae)	Katarolu	Asian pigeon wings	Roots	Peptic ulcer	Roots of <i>C. ternatea</i> are pounded into a fine paste and given with Bee's honey and ghee to those suffering from peptic ulcer.
<i>Coccinia grandis</i> (Cucurbitaceae)	Kowakka	Ivy gourd	Roots and Entire Creeper	Diabetes mellitus	120 g of fresh entire creeper of <i>C. grandis</i> is boiled in 1920 ml of water until reduced to 240 ml and given to control diabetes mellitus.
<i>Coccinia india</i> (Cucurbitaceae)	Gonkekiri	-	Seeds	Renal calculi	3 g of powdered seeds of <i>C. india</i> are given with 1.25 gm of rock salt daily to treat renal calculi.
Corchorus olito- rius (Tiliaceae)	Galkura	Nalta Jute	Entire plant	Diabetes mellitus	Entire plant of <i>C. olitorius</i> is ground with Bee's honey and 10 gm given twice a day to treat diabetes patients.
<i>Cyperus rotundus</i> (Cyperaceae)	Kaladuru	Nut grass	Rhizome	Diarrhoea.	60 g of dried rhizome of <i>C. rotundus</i> is boiled in 1920 ml of water until reduced to 240 ml and given to control diarrhoea.
Eclipta prostrata (Asteraceae)	Keekirindiya	False Daisy	Entire plant	Gastritis	Equal parts of entire plant of <i>E. prostrate</i> and pericarp of <i>Terminalia chebula</i> are taken and powdered well.10 g of this powder is given twice a day with jaggery to patients suffering from gastritis.
Elephantopus sca- ber (Asteraceae)	Ethadi	Elephant's Foot	Entire plant	Bleeding wounds	Fresh leaves are crushed and applied to stop bleeding from wounds. It is also used in treatment of fractures, abscess and cancers.
Eleusine indica (Poaceae)	Balathana	Indian goosegrass	Roots	Muscle Sprains	Roots or entire plant <i>of E. indica</i> are mixed with scraped coconut and a piece of <i>Curcuma domestica</i> . The mxiture is pounded well and heated on a pan till it is cooked. Pack over sprained muscles and bandage well.
Emilia sonchifolia (Asteraceae)	Kadupahara	Lilac tassel flower	Entire plant	Fever Cough Diarrhoea	Entire plant of <i>E. sonchifolia</i> is cooked and given as a vegetable to the patients suffering from fever, cough and diarrhoea.
Eriocaulon quin- quingulare (Eriocaulonaceae)	Heen Kok- mota	-	Entire plant	Jaundice	120 g of entire plant of <i>E. quinquingulare</i> is boiled in 1920 ml of water and reduceed to 240 ml.Given twice a day to treat patients suffering from Liver disorders, Jaundice and splenomegaly.

14

#### ERHSS EDIRIWEERA: MEDICINAL USES OF WEEDS

Botanical name and Family	Sinhala name	English name	Part used in medicine	Indication	Prescription
Euphorbia hirta (Euphorbiaceae)	Bu- dadakeeriya	Asthma weed			120 g of fresh entire plant of <i>E. hirta</i> is boiled in 1920ml of water until reduced to 240 ml. This decoction is given twice a day to treat renal calculi.
Euphorbia indica (Euphorbiaceae)	Ela- dadakeeriya	-	Roots	Renal calculi Dysuria Bronchial Asthma	120 g of fresh entire plant of <i>E. indica</i> is boiled in 1920ml of water until reduced to 240 ml. This decortion is given twice a day to treat renal calculi, dysuria and bronchial asthma.
<i>Gynandropsis</i> gynandra (Capparidaceae)	Vela	African spider flower	Entire plant	Worm infestation	5 g of powdered seeds of G. gynandra mixed with sugar and given to treat worm infestations.
Heliotropium indicum (Boraginaceae)	Ethhoda	Indian heliotrope	Entire plant	Dermatitis, Joint Swelling	Leaves and roots are ground into fine paste and applied in treatment of dermatitis and swollen joints.
<i>Hemidesmum in- dicus</i> (Asclepiadaceae)	Iramusu	Indian Sarsaparilla	Entire Creeper	Dermatitis	60 g of entire creeper of <i>H. indicus</i> is boiled in 1920 m of water until reduced to 240 ml. This decoction is used to treat patients suffering from dermatitis.
Hygrophila spinosa (Acanthaceae)	Ikiri	Sea Holly	Roots	Dysuria Burning sensation in micturition	60 g of entire creeper of <i>H. spinosa</i> is boiled in 1920 m of water until reduced to 240 ml. This is given to patients suffering from dysuria and burning sensation in micturition.
Imperata cylindrica (Poaceae)	Illuk	Red Baron	Roots	Dysuria, Menorrhagia	60 g of <i>I. cylindrical</i> is boiled with 1920 ml of water till reduced to 240 ml. This decoction can be given to patients suffering from dysuria and menorrhagia.
Indigofera tinctoria (Fabaceae)	Nilavariya	Indigo	Leaves	Promote Hair growth	Leaves of <i>I. tinctoria</i> are pounded and juice is extracted by squeezing. Oil for applying on head is prepared with aforesaid juice and Sesame oil according to Thaila Prib- hasha (Rules and regulations of preparing oil.)
Ipomoea pes- tigridis (Convolvulaceae)	Divi pahuru	Tigers Foot Morning Glory	Entire creeper	Rabies	Entire creeper of <i>I. pes-tigridis</i> is crushed well and juice is extracted. This fresh juice is administered orally or used in errhine therapy to cure or prevent rabies it bitten by a dog suffering from rabies.
Jatropha glandulif- era (Euphorbiaceae)	Deththa	-	Root	Piles	Roots of <i>J. glandulifera</i> are ground and applied over haemorrhoids to reduce swelling and pain.
Lantana camara (Verbenaceae)	Gadapana	Spanish flag	Leaves	Joint swelling	Leaves of <i>L. camara</i> are pounded together with a piece of rhizome of <i>Curcuma domestica</i> and ground well, mixed with oil of <i>Azadirachta indica</i> and applied over swollen joints.
<i>Leucas zeylanica</i> (Lamiaceae)	Getathumba	Ceylon slit- wort	Entire plant	Worm infestations	120g of fresh <i>L. zeylanica</i> is boiled in 1920ml of water until reduced to 240ml. 120ml of decoction is given twice a day to worm infestations.
<i>Mimosa pudica</i> (Fabaceae)	Heen Nidi- kumba	Sensitive plant	Entire plant	Dermatitis	Entire plant of <i>M. pudica</i> is boiled with leaves of <i>Azadirachta indica</i> and pieces of rhizome of <i>Curcuma domestica</i> . This is used to wash and Clean the patients suffering from dermatitis.
Ocimum sanctum (Lamiaceae)	Maduruthala	Holy Basil	Entire plant	Fever	60g of entire plant of <i>O. sanctum</i> is boiled in 1920 m water until final volume becomes 240 ml. 120 ml of this decoction is mixed with dried powder of ginger and given to patients suffering fever including malaria.
Oldenlandia corym- bosa (Rubiaceae)	Walpatpada- gam	Flat-Top Mille Graines	eEntire plant	Renal disorders	Entire plant of <i>O. corymbosa</i> is boiled in water as to make a herbal tea or decoctions are prepared and given to patients suffering from various renal disorders.
Oxalis corniculata (Oxalidaceae)	Embulam- biliya	Creeping woodsorrel	Entire plant	Anorexia	120g of entire plant of <i>O. corniculata</i> are pounded a little amount of water is added and juice is extracted by squeezing 30 ml of juice given twice a day to reduce anorexia.

Tropical	Agricultural	Research &	Extension	10, 2007
----------	--------------	------------	-----------	----------

Botanical name and Family	Sinhala name	English name	Part used in medicine		Prescription
Peperomia pellu- cida (Piperaceae)	Wathura Gas	Pepper elder Peperomia	Entire plant	Burns	Entire plant of <i>P. pellucida</i> is crushed and rubbed over the burned area to reduce burning sensation and prevent blisters due to burns.
Phyllanthus debilis (Euphorbiaceae)	Pitawakka	Niruri	Entire plant	Sinusitis	120 g of fresh plant <i>P. debilis</i> is boiled in 1920 ml of water until reduced to 240 ml. 120 ml of decoction is given twice a day in sinusitis.
Phyllanthus uri- naria (Euphorbiaceae)	Rathpitawakka	aChamber bitter	Entire plant	Sinusitis	120 g of fresh entire plant of <i>P. urinaria</i> is boiled in 1920 ml of water until reduced to 240 ml. 120 ml of decoction is given twice a day in sinusitis.
Polygonum barba- tum (Polygonaceae)	Kimbulwenna	Joint weed, Knotgrass	Entire plant	Diarrhoea	Entire plant of <i>P. herbatum</i> is boiled in water and used to treat patients suffering from diarrhoea.
Portulaca oleracea (Portulaceae)	Genda Kola	little hogweed	Entire plant	Haematuria Dysuria, Piles Dermatitis	Entire plant of <i>P. oleraceae</i> is cooked and used as a vegetable by patients suffering from haematuria dysuria, piles and dermatitis.
<i>Psidium guajava</i> (Myrtaceae)	Pera	Guava	Leaves	Pityriasis versicolor	Leaves of <i>P. gujava</i> are crushed and rubbed on the areas infected to reduce pityriasis versicolor.
<i>Scoparia dulcis</i> (Scrophulariaceae)	Walkottamalli	Sweet Broom	Entire plant	Diabetes mellitus Renal calculi Diarrhoea	120 g of fresh <i>S.dulcis</i> is boiled in 1920 ml of water until reduced to 240 ml and given twice a day to control Diabetes mellitus and to expel renal calculi.
<i>Sida acuta</i> (Malvaceae)	Gas Bebila	Common wire weed	Roots	Neuralgia	60 g of dried roots of <i>S. acuta</i> are boiled in 1920 ml of water until reduced to 240 ml and given twice a day to reduce pain especially in neuralgia.
<i>Sida cordifolia</i> (Malvaceae)	Wal-bebila	Country mallow	Leaves Roots	Insanity	Leaves of <i>S. cordifolia</i> boiled with cow's milk and ground into a fine paste and mixed with Sesame oil This is applied over scalp and kept about half an hour to treat insanity.
<i>Sida rhombifolia</i> (Malvaceae)	Kotikan Be- bila	Cuban jute	Roots	Fever	60 g of dried roots of <i>S. rhombifolia</i> are boiled in 1920 ml of water until reduced to 240 ml and given twice a day to reduce fever.
<i>Solanum nigrum</i> (Solanaceae)	Kalukam- meriya	Black Nightshade	Entire plant	Erysipelas	Leaves of <i>S. americanum</i> are ground with ghee and applied on lesions.
Sphaeranthus in- dicus (Asteraceae)	Mudumahana	East Indian Globe Thistle	Entire plant	Chronic cough Rhinitis	Entire plant of <i>S. indicus</i> is powdered and 2.5g of this powder is given to treat chronic cough and rhinitis.
<i>Sphenoclea zey- lanica</i> (Sphenocleaceae)	Mahamudu- mahana	Chicken spike	Entire plant		Oil is prepared from entire plant of <i>S. zeylanica</i> and Sesame oil according to Thaila Parbhasha.
Spilanthes calva (Asteraceae)	Akmella	Toothache plant	Leaves Roots	Toothache	Leaves are crushed and kept over dental caries to reduce the pain.
<i>Tephrosia purpurea</i> (Fabaceae)	Kathurupila	Wild Indigo	Roots	Jaundice Splenomegaly	Roots of <i>T. purpura</i> are burned in an earthen pot till it turns to ash. 1-2g of ash is given to treat jaundice and splenomegaly.
Trianthema portula- castrum (Aizoaceae)	Sarana	Desert Horse-Purslane	Roots	Dysuria Oe- dema	60 g of roots of <i>T. portulacastrum</i> are boiled in 1920 ml of water until reduced to 240 ml and given twice a day in treatment of dysuria and oedema.
<i>Tribulus terrestris</i> (Zigophyllaceae)	Heen Gokatu	Goathead Puncture vine	Entire plant	Dysuria Renal calculi	60g of entire plant of <i>T. terrestris</i> is boiled in 1920 ml of water until reduced to 240 ml and given twice a day in treatment of dysuria and renal calculi.
<i>Vernonia anthelmintica</i> (Asteraceae)	Sanninayam	Ironweed, Purple fleabane	Seeds	Leucoderma	Oil is prepared with seeds of <i>V. antihelmintica</i> and Sesame oil according to Thaila Paribhasha and applied on leucoderma patches. This oil helps to turn the leucoderma patches into brown colour.
<i>Vernonia cinerea</i> (Asteraceae)	Monara- kudumbiya	Lttle ironweed Purple fleabane	Entire plant	Jaundice	Handful of entire plant of <i>V. cinera</i> is cut into small pieces and pounded. Water is added and the juice is

ERHSS EDIRIWEERA: MEDICINAL USES OF WEEDS

Botanical name and Family	e Sinhala name	English name	Part used in medicine		Prescription
					extracted by squeezing. Handful of red rice mixed with water and boiled till is turns to a thick gruel. Aforesaid juice is mixed with gruel, boiled and given to patients suffering from jaundice.
Withania somnif- era (Solanaceae)	Amukkara	Indian Ginseng Winter Cherry		Impotency Infertility	Roots of <i>W. somnifera</i> are powdered. 5-10 g of this powder is fried with sufficient quantity of ghee and given to drink with cow's milk to treat impotency and infertility.

# DISCUSSION

Almost sixty five plants which are considered as weeds, are used as medicines by Ayurvedic and Traditional physicians in Sri Lanka. These plants belong to thirty five families. Entire plant or different parts of the plants such as roots, root bark, stem, stem bark, flowers, leaves, fruits and seeds are used as medicine. They are used in treatment of various diseases such as worm infestations, dysuria, polyurea, renal calculi, neuralgia, wounds, jaundice, impotency, diarrhoea, dermatitis, sinusitis, haemorrhoids, muscle sprains, pyrexia, spleen and liver disorders. Some weeds such as A. lanata, A. sessilis, A. viridis, A. longifolia, C. asiatica, C. halicacarbum, C. occidentalis, C. tora, C. grandis, L. zeylanica, O. corniculata, P. oleraceae, S. indicus, T. portulacastrum, A. viridis and V. cinera are edible and are used as vegetables, used in preparing herbal chymes and herbal teas.

# SUMMARY AND CONCLUSION

The focus of an agriculturist would be on the main cash crop that is being grown in an agricultural land. Therefore, he would generally consider other plants that spring up in this area without any known benefit to the farmer, as an obstacle. Therefore, agriculturists and weediologist should pay special attention to identify beneficial weeds. They should take care to promote beneficial weeds and to preserve and propagate them, which are medicinally valuable. It is concluded that weeds are valuable medicines and should be protected. The world must be made aware of the medicinal values of weeds. This will help the availability of medicinal plants in abundance and promote Ayurvedic and Traditional medicine while financially benefiting the farmer too.

# REFERENCE

- Knanawimala, K. (1970) Deshiya Vaidya Shad ha Kosha, Shasthrodaya Mudranalaya, Ratnapura, Sri Lanka. P2, 117, 262, 342, 472
- Anonymous (1985) Ayurveda Pharmacopeia, Department of Ayurveda, Colombo, Sri Lanka, Volume 1 Part 11: 42, 151
- Anonymous (1979) Ayurveda Pharmacopeia, Department of Ayurveda, Colombo, Sri Lanka, Volume 1 Part 111: 42
- Anonymous (1994) Osu Visithuru, Department of Ayurveda, Colombo, Sri Lanka, Volume 1: 29, 33, 100, 121, 183, 242, 267
- Anonymous (1994) Osu Visithuru, Department of Ayurveda, Colombo, Sri Lanka, Volume 11 : 28, 60, 170, 186, 257, 264
- Anonymous (1994) Osu Visithuru, Department of Ayurveda, Colombo, Sri Lanka, Volume 111 : 237, 55, 65, 81
- Anonymous (1994) Osu Visithuru, Department of Ayurveda, Colombo, Sri Lanka, Volume 1V : 123, 256, 323
- Ediriweera, E.R.H.S.S. and Ratnasooriya, W. D. (2002) Antidiuretic effect of *Scoparia dulcis* in rats *J.Trop. Med. Plants*. 3: 55-58
- Ratnasooriya, W.D., Galhena G., Liyanage S.S.P., Jayakody J.R.A.C., Hettiarchchi H.D.I. and Ediriweera, E. R.H.S.S. (2003) Analgesic and antihyperalgesic activities of decoction of Sri Lankan *Scoparia dulcis*. J.Trop. Med. Plants 4 : 63-70
- Ratnasooriya, W.D., Jayakody, J.R.A.C., Premakumara, G.A.S. and Ediriweera E.R.H. S.S. (2005) Antioxident activity of water extract of *Scoparia dulcis Fitotherpia*.76: 220-222
- Ratnasooriya, W.D., Galhena G., Liyanage S.S.P., Jayakody J.R.A.C., Hettiarchchi H.D.I. and Ediriweera, E.R.H.S.S. (2005) Antidiarrhoeal activity of decoction of *Scoparia dulcis* in rats. *Vidyodaya J.* Sc 12:57-64