

What Is a Soapnut ?

Soapnuts are known worldwide by many names such as soapnuts, soapberry, washing nuts, soap nutshells, wash shells, soapberry nut husk, Ritha (Hindi) nutshell, and many more. Very simply, Soapnuts are the dried shells (or husks) from the soapberry (or soap berry nut). These berries are the fruit from a quite unique tree species. These shells contain a substance called saponine that produces a soaping effect.

Saponine is a 100% natural alternative to chemical laundry detergent and cleansers. It can replace many chemical detergents such as those containing sodium laureth sulphate (SLS) that are becoming well known by consumers for being a skin irritant and health hazard. Soapnuts have been used for centuries throughout the world as a laundry detergent, as soap for personal hygiene, and as a cleanser with a plethora of other uses.

The Trees and the Soapberry Nuts :

A medium sized deciduous tree up to 20m in height with grey smooth bark, peeling off in scales, leaves pinnate, leaflets 2-3 pairs, length 6-13cm, width 2-4cm, terminal pair being the largest, flowers white, polygamous, male flowers many, bisexual flowers few, all in the same pubescent panicle, fruits fleshy drupes, light yellow when fruit mature and the pulp becoming a saponaceous wrinkled rind on drying, seeds black. Blooms in May-June, fruits mature in November.

Based upon its high amount of 'soap' content and consistency, the highest quality soapnut is Sapindus Mukorossi, which grows primarily in northern India .

It grows uncultivated in poor quality ground and helps fights erosion. It also provides needed income to the local population. It is a relatively hardy tree being resistant to diseases and insects. The tree grows to 10 to 20 meters in height and begins flowering and bearing fruit after about 90 year.

It blooms with small; white grouped flowers in spring and early summer and is harvested annually during the fall season. The soapberry fruits (the soap nut) are round yellow berries that become gummy, reddish tan and wrinkled as they ripen. Its appearance is somewhat like that of a date. The tree synthesizes its own natural saponins, (soap) which coat the shell of the fruit. The tree has great longevity and will produce fruit (Soapnuts) for about 90 years and the lifetime can last as long as 200year.

Soap Nut Tree Species:

Sapindus MUKOROSI is a sustainable agriculture and forest product. In many ways it is similar to an olive tree. There are several common varieties of the soapberry tree. Sapindus Mukorossi and Sapindus Trifoliatius are the primary sources for the soapberry that has become know as the soap nut. They are both of the family Sapindaceae, and the genus Sapindus. The botanical name is derived from the Latin words, soap (soap) and indicus (Indian).

Soapnut tree produces the most consistent quality of Soapnuts of high saponin content. Sapindus Trifoliatius, which grows primarily in southern India, China, Indonesia and Pakistan, is a smaller tree producing smaller fruit that lack consistency and saponin content compared to northern Indian Soapnuts.

These Soapnuts are larger, brighter in color and gloss and are more effective in producing the 'soapy' effect. All Soapnuts being marketed throughout the world contain the all-important saponins. Consistently high saponin content is the primary measure of quality. And Indian Soap cherry tree are widely grows in the east with age over 40 years, produces very high quality saponins.

And nowadays a lot of people began to plant the trees, which will make India a bigger exporting country of the Soapnuts all over the world soon

Harvesting Soapnuts :

Local farmers and families harvest the prized soapberry fruit after it falls from the tree. The seed is removed from the shell (or husk), and the shells are dried in the sun using absolutely no chemical processing. No commercial manufacturing processes are required in any way for the soap nut to become effective. The soap nutshell is not altered in any way. Hence, Soapnuts are absolutely 100% natural, unmodified dried fruit shells. Note:

The actual nut (or better yet, seed) does not release saponin, hence has no cleaning properties. It is used for planting new trees and is sometimes used to make necklaces and other jewelry.

Main composition

The outer shell of the soapnut contains a moderate sticky substance called saponine - sapindoside A,B,C,D,E etc. The shell contains about 4% saponine, 1.2-4% Vitamin C; and also some Hutin, kaempferol, quercetin and B-sitosterol.

The seed contains fat and protein; nutlet is eatable and oil squeezable(up to 42% oil inside, which can be good quality lubricant).Root, bark and leaves can be antipruritic and detumescent and used for cough treatment.

Soapnuts aren't a new concept! Soapberry is a detergent plant that has been widely used by human beings since the ancient times. It has the good detergent and cleaning property. Apart from using it as a detergent, people also use soapberry to cure skin diseases such as dandruff, lost of hair, whelks, acne and splashes on skin.

Detailed Medical and Washing Functions of soapberry

From ancient time to now ,there are detailed records about the effects of washing and medical treatment in medical books.

The book "Compendium of Materia Medica" of the Ming Dynasty especially recorded the various of medical effects of soapberry in detail. It stressed that it could make skin whiter and removes speckles when used for face. And it can make eyes brighter and clean the dandruff when used for hair.

The powdered seeds are said to possess insecticide properties. They are employed in the treatment of dental caries. It cleanses the skin of oily secretion, it's a hair tonic, and forms a rich, natural lather. Its detergent action, which cleanses the hair and removes, accumulated debris and a sebaceous material further more imparting peculiar reflection and hair luster.

The roots and bark are expectorant and demulcent. The roots are good for hemicrania, hysteria and epilepsy. A decoction of the bark is good for cattle suffering from ulcers due to worm infestation after calving. The fruits are acrid, bitter, thermogenic, emetic, astringent, expectorant, anthelminthic, abortifacient and tonic. They are good for asthma, diarrhea, cholera, lumbago, verminosis and gastralgia dyspepsia.

Application Field and Method

As it comes from natural plant without any synthetic chemicals added, it will not bring damage to environment and people's health. The best advantage using soapberry milk is that we needn't to worry about the deleterious chemical detergent residues harm to our body.

Washing Laundry with Soapnuts

It does not get much simpler. Doing laundry can even be fun! Really. Washing clothes: It can clean clothes effectively and make their colors bright and shiny.

Most laundry detergents on the shelves of our supermarkets contain numerous chemical substances, synthetic dyes, fragrances and fillers. These chemical substances are effective in deeply penetrating our clothes - cleaning, sanitizing and scenting them. However, these same chemicals build up in our clothes and linens and transfer to our skin leading to short term and/or long-term skin troubles for some individuals. They break down fabric fibers and fade colors and they are harmful to our environment.

Soapnuts are simply a better way.

Basic Laundry Directions: The simplest, most common and traditional method of washing laundry with Soapnuts is by using the raw nuts in a drawstring bag, and simply tossing the bag in with your laundry. The Soapnuts can also be used to make a 'tea', a fine soap nut powder or concentrated solution. (See other forms and tips.) All forms and methods work great.

Warm or Hot Water Wash:

Put 4 or 5 soap nutshells or equivalent pieces, about a half-ounce, in cotton or muslin drawstring bag and tie bag securely.

Toss in washing machine before you add your clothes.

Remove from washer at end of the wash to dry (leave Soapnuts in bag). Soapnuts can remain till the end of washing cycle, as rinsing water is cold and very little saponine will thus remain on linen.

Re-use 3 to 5 times. The Soapnuts are no longer effective when they become thin, mushy and very light tan or gray.

Cold Water Wash

Cold wash : since saponin can only be extracted from the nuts when the water is heated, a decoction or liquid is necessary for a cold wash. Boil 3 to 4 handfuls of nuts in one liter of water for 4 minutes. Remove the shells and allow to cool.

One spoonful is enough for a load.

Use liquid soap nut or simply make a cup of soap nut 'tea' by soaking 4 or 5-bagged Soapnuts in a cup of very hot water for approximately 3 minutes.
Pour both the Soapnuts liquid and bag in wash.
Remove from washer at end of the wash to dry (leave Soapnuts in bag).
Re-use 3 to 5 times. Soapnuts are no longer effective when they thin, turn soft, mushy and very light tan or gray.

Hand Wash

Add about 2 tbs of soap nut liquid to wash water and stir, or make a tea with your soap nut muslin bag. Simply hand wash as usual.
Powdered: Put 2 - 3 tsp Soapnuts powder in wash water. Wash as usual.

Liquid: Pour about a quarter cup of liquid soap nut solution into wash water. Shake up soap nut solution before pouring. Wash as usual. Give a scent to your washing
Using soapnuts, the scent will be neutral. You can therefore spray the cotton bag with a few droplets of essential oil (lavender, orange, mint...) to add scent on the linen before introducing it in the washing machine.

Resistant stains

In such case (blood, egg, grass, mud, milk, sweat, ice-cream, oil or jam stains), add some soap nut liquid on the stain part before the laundry contact water to have a pre-wash first and then wash as usual.. White linen
To avoid the graying of white cloth, add one to two spoonful of bleaching agent inside the washing machine.

How to get rid of soapnuts

Soapnuts remnants can be deposited on a compost heap (No harmful waste for environment).

Washing face and body:

It can clean skin effectively, along with abundant foam, which also could kill germs and regenerates the skin. Meanwhile, it has the beautifying and whitening effects and is able to remove speckles, whelks and prevent and cure skin diseases(such as flat wart)caused by virus. As soapberry has the function of dilating the capillary vessels, it can make people relax completely after bath and recover from fatigue quickly, giving them a comfortable feeling as after massage. May soothe the eczema, psoriasis, itchy skin, and sensitive skin. You can fill a soap dispenser with it.

Washing Hand :

Helpful in removing stains from hands. Use lukewarm water, add 6 to 8 half shells mix them until the water is soapy with a slight lather, and then remove the Soapnuts. Or add about 2 tbs of Soapnuts liquid to wash water and stir, or make a tea with your Soapnuts muslin bag. Simply hand wash as usual. You can also prepare a decoction of the nuts in advance and use it from a bottle. Boil 3 to 4 handfuls of nuts in one liter of water for 4 minutes. Remove the shells and allow to cool.

Washing hair:

Soapnuts gives a shampoo, which makes hair look shiny and full of vitality. Use Soapnuts liquid to shampoo hair. Leave in for about 5 minutes. Rinse as usual with warm water. The hair will be smooth and have a good sheen and is easy to comb. The shampoo is recommended for people suffering from allergies of those with sensitive scalps. Soapnut is an excellent hair tonic. It can prevent and cure such skin diseases as dandruff and sores on the head effectively. The pulp of the fruit contains a high level of natural foaming agents. However if you prefer more foam, add a little your favorite shampoo. We know it's hard not to want more foam. And it is better to use the Soapnuts as protein Shampoo with Conditioner.

Other Uses of Soapnuts

The following is only a very short list of some alternate cleaning solutions that Soapnuts will work great for. Many common household cleaners can be replaced entirely with the use of Soapnuts. Saponin's inherent effective cleaning power, antimicrobial and antifungal properties, odor reducing capability, and natural gentleness combine to provide an amazingly safe yet effective cleanser for a multitude of everyday uses.

Incredibly, the vast majority of highly toxic synthetic chemicals in our homes can be thrown away forever.

TIPS :

Soapnuts will last longer using warm vs. hot water.
Soft water may require less Soapnuts. Very hard water will require a bag of 5 shells.
There is no need for fabric softener. Soapnuts leave your cloths soft.
Soapnuts have a distinct odor, similar to vinegar when they are dry and more pungent when wet. Soapnuts do not smell pleasant: but amazingly your clothes smell clean and fresh after washing with Soapnuts.

If you like scent, you can add 10 drops of essential oil on the cotton bag before tossing it into the machine.

Soapnuts will not remove heavy stains, as with any detergent, pre-treat stains with a stain remover as you normally would.

If clothes are very dirty, do half size loads instead of full.

If you like super whites, you can add oxygen bleach to the load.

Soapnuts perform better in a less than full load.

There will be very little suds. No suds actually means no commercial foaming agents or chemicals.

Soapnuts are wonderful for washing cloth diapers. Unlike chemical detergents, they will not clog the fabric causing the diaper to loose its absorbency and they will not cause diaper rash. In addition, Soapnuts will clean and remove detergent residue from diapers.

Soap Nuts and Their Benefits

Soap nuts are a fruit of Sapindus Mukorossi trees. These trees grow in North. Sapindus has about five to twelve species of shrubs and small tree which grow in tropical and warm climate. There are nearly 5 to 12 different types across the world. The crushed seeds are used to make soap.

The Sapindus genera of trees are straight cylindrical and have height of 4 meters to 5 meters. The tree has life span of nearly 70 years; it can reach a height of 25 meters and trunk diameter of 1-2 meters. It is excellent tree to plant along boulevards.

The bark is shining gray and fairly smooth when the plant is young and dark grey when tree is mature. The fruit which is called soap nut is 1-2 cm in diameter small leathery skinned contains one to three seeds. The foliage is used to feed live stock during drought. Soap nuts contain natural surfactant called Saponin which is used to clean clothes. Saponin cleans cloth by allowing water to enter fabric and removing dirt. The ripe fruit of the tree is golden or brown in color.

Soapnuts are alternatively chemical detergents and are environment friendly. Soap nut are safe for washing woolens and other delicate fabrics. It can be reused many times by placing few nuts in cotton bag with a wash load.

Soapnuts are used for many medicinal uses. It is also in list of herbs and minerals for Ayurveda, ancient Indian medical system. The Soap nuts are also used in Unani and Tibetan indigenous and century old medical systems.

Soap nuts are used as in Ayurvedic shampoos and cleanser also as medicine for eczema and psoriasis.

The various uses are as under:

- Soap nuts shell is used as natural and environment friendly detergents. They are odorless. Also the waste water can be reused from irrigation. It is organic, bio-gradable and non polluting cleaning product.
- Being Hypoallergenic, soap nut does not harm hands.
- Soap nut are non soapy and have less suds, this reduces water consumption.
- Being mild detergent it helps maintain color and feel of the fabric.
- De-toxing Food: Soap nuts powder added to warm water can help remove the residual pesticide and chemicals in fruits and vegetables by washing them.
- It can be used washing pets, cars and carpets and other things at home as the waste water can be used for watering garden.
- It is recommended for bathing especially for people with skin disease and allergy.
- It is widely used for washing hair. It prevents dandruff and removing lice.
- Soap nuts solution can be used for cleaning jewelry.
- The saponin from the soap nuts is used in preparation of toothpaste and textile auxiliary.
- Soap nuts powder is added to facial pack to provide delicate cleansing of skin.
- It has been used for curing eczema and psoriasis.

- Soap nuts have also been used as an expectorant and emetic and even for migraine, epilepsy and cholera.
- Natural pesticides: Soap nuts are also used as an effective and natural pesticide for plants and repelling insects around the home.
- A contraceptive cream out of Ritha fruit has been recently developed by the Central Drug Research Institute, India

Soap nuts are really multipurpose natural produce in service of mankind and nature.

Other Advantages of using Soapnuts

Soap nuts are a completely renewable, biodegradable material that can be put on your compost heap once spent.

Allergy free and especially good for babies, eczema and sensitive skin. People with allergies and people suffering from dermatitis in particular will benefit from the use of soapnuts, as clothes which were cleaned with soapnuts do not irritate the skin or cause itching.

Keeps your colours bright.

Economical compared to other brands of detergent. 1 kg of soapnuts can be used for up to 150 loads of laundry. You save 20 to 50% compared to normal detergents.

You even save money for the fabric softener because laundry washed with soapnuts turns out surprisingly soft.

Support the local economy of the regions where it is harvested. Families in India often depend on the harvest of their few trees to supplement their income.

Soap Nuts: The Environmental Aspect

Environmental degradation has been a matter of concern for human species for over centuries now. Ecologists, biologists, and many others are engaged in a very tedious job of coming up with products which are less harmful to the human beings and the nature.

Our ever increasing dependence on the technical advancements has left us on a verge of an era where, we can see our destruction owing to the fall of nature due to the human atrocities. Day in and day out, we use products which not only harm us but also our Mother Nature by disturbing the balance in the ecosystem. Water pollution, air pollution, noise pollution and so many others in the queue are a constant threat to us.

A few decades back, it was established that the simple laundry detergent that we use for cleaning our clothes are actually harming us and in the long run destroying our clothes! These detergents contain harmful chemicals, dyes and artificial fragrances which are left behind in the clothes even after they are washed.

These harmful chemicals later percolate into our blood causing various types of diseases. When we try to see from the nature's perspective, we find that the water running away after the clothes are being washed, contain harmful chemicals which disturb the aquatic ecosystem!

However, to give a sigh of relief, there is one natural product that can not only replace these harmful chemical detergents but also protect us and also our precious nature.

It is quite possible that you have not heard about this gift that nature has in its store to give us. Soap Nuts, the natural soap grows on trees and has the ability to replace the laundry detergents. Growing on a tree called Sapindus, the soap nut is found in the jungles of India.

They have a natural substance called Saponin which comes out when the soap nut comes in contact with water and enables water to penetrate the fabric of the cloth and clean it.

If we try to speak about the environmental aspect of the soap nut then, it is better to queue them up for an easier and clear understanding.

- 100% vegetable detergent, the soap nut is scentless and is biodegradable and does not compromise with cleaning the cloth.
- People with allergy and skin diseases are advised to use the soap nut for bathing because of the anti-microbial properties of the Saponin.
- Soap nuts are economical and do not come up with any harmful environmental wastes on decomposition.
- The presence of less chemical agents does not pollute the water courses.

These biodegradable soap nuts are non-toxic by nature and do not pose any threat to mankind even in the remote future. However, studies have revealed that the Saponin in the soap nuts can be used for other environmental benefits like combating harmful micro organisms and controlling fish population.

In short we can term soap nuts as a blessing to mankind and we must all strive for making a better use of this wonderful gift given to us by Mother Nature.

Sapindus mukorossi- Soap nut tree

Sapindus mukorossi with its large leaves, is a handsome deciduous tree found in India. This tree belongs to the main plant order Sapindaceae and family Sapindeae. The species is widely grown in upper reaches of the Indo-Gangetic plains, Shivaliks and sub-Himalayan tracts at altitudes from 200 to 1500 m.

Also known as soap-nut tree, it is one of the most important trees of tropical and sub-tropical regions of Asia. It is also called doadni, doda and dodan in Indian dialects.

Sapindus mukorossi is a common tree in Himalayas ,it is found growing naturally in suitable tracts. This tree flourishes in deep clayey loam soil and does best in areas experiencing nearly 150 to 200 cm of annual rainfall.

The trunk of Sapindus mukorossi is straight and cylindrical, nearly 4 to 5 m in height. The canopy comprising side branches and foliage constitutes an umbrella-like hemispherical top measuring about 5 m in diameter. The tree can reach a height of 25 m and a girth of 3 to 5 m in nearly 70 years of its existence.

Sapindus mukorossi is thus an excellent tree for planting along boulevards.

The bark of Sapindus mukorossi is shining gray and fairly smooth when the plant is young. It is dark grey when the plant approaches maturity. Sapindus mukorossi are long stalked odd pinnate.

The rachis is nearly 30 to 50 cm long and bears 5 to 10 pairs of leaflets. An individual leaflet is about 7 to 15 cm long and 2 to 5 cm wide. It is acuminate and lanceolate in shape.

The size of leaflets towards the tip of the rachis is smaller.

Sapindus mukorossi flowers during summer. The flowers are greenish white. The fruit appears in July-August and ripens by November-December. These are solitary globose, round nuts 2 to 2.5 cm diameter, fleshy, saponaceous and yellowish brown in colour. The seed is enclosed in a black, smooth and hard globose endocarp. The fruit is collected during winter months for seed and or sale in the market as soap nut.

The dried fruit of Sapindus mukorossi is the most valuable part of the plant. Its fleshy portion contains saponin, which is a good substitute for washing soap and is as such used in preparation of quality shampoos, detergents, etc. In fact the skin of the fruit is highly valued by the rural folks as a natural produced shampoo for washing their hair. They also use these for washing woollen clothes. This is why some botanists have named the species as Sapindus detergents.

Sapindus mukorossi foliage can be used as cattle fodder during drought. The fruit is of considerable importance for its medicinal value as well. Ayurvedic, Unani and Tibetan systems of medicine consider it to be useful for treating a number of diseases. Sapindus mukorossi wood is hard and light yellow in colour. It is close-grained and compact weighing about 30 kg per cubic foot. The wood is utilized for rural building construction, oil and sugar presses, agricultural implements, etc.

Soapnuts advantages

It doesn't contain any synthetic detergent, essence, pigment, antiseptic and other chemicals and is used for clean skin (the whole body, face and hands) and clothes. It has the good detergent property and can clean away dirt effectively. It's rich in foam, can kill germs, has the beautifying and whitening effects and is able to remove speckles and whelks and prevent and cure skin diseases.

Since it's a pure natural product and 100% degradable, no remnants harmful to the body and environment will be produced even if it's used for a long time.

It is a 100% vegetable detergent: with a soft cleaning effect on linen without any reduction in its deep cleanliness beyond reproach. Scentless and biodegradable, Soapnuts give back a naturally soft linen without any softener agent addition.

Universal Application: you can use it anywhere as you can imagine such as laundry, hand, body, shampoo, bathroom, kitchen, pet etc. Not only clean everything you can see, but also protect skin and hair because it's abundant effective nutrient composition.

Non-Allergenic and Hypoallergenic: Kind to humans & pets and advisable for people with allergy and skin disease such as allergy, eczema & psoriasis sufferers.

Color protection: Colored cloth such as jeans and T-shirts keep their brightness much longer.

Save Water & Time No need to use the rinse cycle on your washing machine.

Great in septic tanks. If hand wash, only simply rinse once. Thus save both water and time.

Environment protection: no chemical agents at all, thus 100% environment friendly. Even soapnuts remnants can be deposited on a compost heap.

Cost Effective: Costs as little as *12 cents to wash a load of laundry. *(Based on a 1kg bag). There is a 50% economy in quality / price ratio with respect to conventional washing agents.