



## Luffa Acutangula- Phyto Pharmacological Review

P.Vijaysanthi<sup>1</sup>, G.Mydhili<sup>1</sup>, M.Aswini<sup>1</sup>, S.Seshadri<sup>1</sup>, R.Ramasubramania Raja<sup>1</sup>, M.Sreenivasulu<sup>2</sup>

<sup>1</sup>Department of Pharmacognosy, Narayana Pharmacy College, Nellore, A.P

<sup>2</sup>Principal Narayana Pharmacy College, Nellore, A.P

Corresponding Author: R.Ramasubramania Raja email: [rsmr\\_raj@yahoo.co.in](mailto:rsmr_raj@yahoo.co.in)

**Abstract:** *Luffa acutangula* Linn. Var. *Amara* Roxb is found in throughout India. It is commonly present in the waste land also. This plant fruit portion is valuable for hypoglycaemic, antiulcer, anti pyretic, and anti hypertensive effect. In this present review is focused on the pharmacognostical characters like scientific classification, vernacular name and the plant potential in biological activity is described. In this review is more useful for further research students.

**Keywords:** *Luffa acutangula*, India, hypoglycaemic, antiulcer, anti hypertensive

### Introduction:

#### Scientific classification:-

Kingdom : Plantae  
Division : Magnoliophyta  
Class : Magnoliopsida  
Order : Cucurbitales  
Family : Cucurbitace  
Sub Family : Cucurbitoideae  
Tribe : Benincaseae  
Sub tribe : Luffinae  
Genus : Luffa



P.Vijayasanthi *et al*, Int. Journal of Pharmaceutical Sciences and Medicine (IJPSM),  
Vol.2 Issue. 1, January- 2017, pg. 01-09

ISSN: 2519-9889

Species : acutangula

Biological source : Luffa acutangula( angled Luffa,ridged Luffa,vegetable gourd)

Synonyms : poppya Neck.ex M.Roem.

Trevauxia steud.,orth.var.

Trevouxia scop.

Turia forssk.

**Vernacular names:-**

Sanskrit : Gantali, kosataki, ksweda, sutikta.

Bengali : Zinga, Titotorai ,TitojHINGA, Ghoshalata.

English : Ribbed gourd, silk gourd, Ridge gourd, Angled loofah, Chinese okra, Sinkw  
towel sponge, vegetable sponge.

Gujarat : Turiya, Kadawa.

Hindi : Turai, satputia, Jhimani.

Kannada : Hire- Valli, Kahire, Baaga daali balli.

Malayalam : PeerKam, Athanga.

Marathi : Dodka Turiya, Divali, Kadudodaki, kadushirali, kadu turai, Ranturai.

Punjab : Turiya, JHINGA, Shirola.

Tamil : Peerkkku, karniti, Kacappi, Itukari, karnityikkoti, peerkangai.

Telugu :Beera , chedu Beera, varri Beera, Adavi Beera, chati beer, Sendubirai, Nethi  
beerKaya.



P.Vijayasanthi *et al*, Int. Journal of Pharmaceutical Sciences and Medicine (IJPSM),  
Vol.2 Issue. 1, January- 2017, pg. 01-09

ISSN: 2519-9889

Urdu	: Turai.
Assam	: Zika.
Kerala	: Peechinga.
Maharashtra	: Dodka
Japan	: Hechima.
Philippines	: Patola.
China	: Sigua, Oyong.
Indonesia	: Sigua, Oyong.
Korea	: Susemi.
Manipur	: Sebot.

#### **Growth and distribution:-**

The *Luffa acutangula* Linn. Var. *Amara* Roxb is a large monoecious annual climber. It is indigenous to western, Central and Southern regions of India, and regarded as Wild variety of cultivated species. It resembles to *Luffa acutangula* in every aspects, except that it has smaller leaves, flowers, fruits, and seeds.

Distribution : *Luffa acutangula* is pantropical and cultivated throughout India.

Habit : Herb.

Propagation. : propagation of *Luffa acutangula* by seeds.

Native range : India and naturalised tropic and Sub tropics.

Cultivation. : *Luffa acutangula* can grow in all type of soils and can be grown in rainy Season.

Seeds can accordingly be down either in February- mARTH(or) June- July.

### MORPHOLOGY:



**Fig: 1** *Luffa acutangula*

Root : Roots are yellowish- Brown in colour, almost cylindrical in shape, having 8- 12cm length and 0.7cm thickness. They are rough in touch because of longitudinal wrinkles and also showed Presence of New adventitious roots.

Stem : Stem is brownish- yellow in colour, 0.2-0.4cm thick, 5 angled, glabrous, and consists of tendrils.



Leaf : Petiole is brownish yellow coloured, 3-8cm in length; somewhat twisted, wrinkled and angular, While lamina having Pale (or) light- green colour, 6-9cm long, crumpled and broad.

Flower : Male flower is 1.3cm long, light greenish- yellow coloured, occurs in small racemes having Pubescent calyx and lanceolate lobes. Three stages are present and corolla is yellow in colour, where as female flower is solitary, yellow coloured having 5-10cm long pedicel. Ovary is Strongly ribbed and trifold stigma is present.

Fruit : Fruits are obovate, cylindrical (or) club- shaped, Pale yellowish-brown colour having 9-12cm Length and 2-4cm width. These are tapering towards the base and covered with 8-10 prominent longitudinal ribs on outer surface. These are three Chambers, of which inner part is fibrous and easily detachable from outer one.

Seeds : Seeds are black coloured, bitter in taste, having ovoid- oblong shape. The length is generally 0.6-0.8cm with width of 0.5-0.6cm.

#### **Uses of *Luffa acutangula*:**

1. *Luffa acutangula* has diuretic properties
2. It is used as an expectorant and hypoglycemic.
3. It is used as a bitter tonic.
4. It is used for to reduce hyper acidity.
5. The leaves of *Luffa acutangula* are useful in the treatment of dysentery conditions.
6. The leaves (or) juice of *Luffa acutangula* are used as dressing in the diseases such as Inflammation of spleen, Ring worms, Piles, Leprosy.
7. Pounded leaves mixed with garlic are applied locally for relief in Leprosy.
8. The roots of *Luffa acutangula* added to milk (or) water is helpful in the removal of kidney stones.



9. Roots of *Luffa acutangula* are added to cooled water. *Luffa acutangula* boiled in hot water and applied on skin is helpful in the swelling of the lymph glands.
10. Oil is extracted from the seeds of *Luffa acutangula* which is used in the treatment of skin diseases.
11. *Luffa acutangula* is also an effective home remedy for the prevention of premature greying of hair.
12. *Luffa acutangula* is chopped in small pieces along with the ribbed skin and completely dried in the Sun. Once, the *Luffa acutangula* is fully dry, it is made into a powder and used to prevent the premature greying of hair.

#### **Luffa acutangula in ayurveda:-**

Ayurveda has attributed *luffa acutangula* with a number of health benefits which current clinical research is supporting as well. The *luffa acutangula* are rich in mineral and are very alkaline for the body and hence they have a cooling effect on the body. From ayurveda point of view, increases vata and kapha, but it cools down and pacifies the dosha pitta in the body. In spite of their bland taste, *luffa acutangula* have many health benefits; Nutrition; *luffa acutangula* has many nutritional benefits as it loaded with fibers, vitamins and minerals. it also has low calories and fats which make them an integral part a healthy diet.

#### **Luffa Acutangula and weigh loss:-**

Since the *luffa acutangula* is low in saturated fat and cholesterol. it is the ideal diet for those who are looking for weigh loss. *luffa acutangula* has a high water content which makes it a food with very less calories. *Luffa acutangula* and treatment of jaundice; the *luffa acutangula* juice is very good natural remedy for the treatment of jaundice. The juice which is prepared by pounding the *luffa acutangula* or the powder which made from the bitter *luffa acutangula* seeds and crust is helpful in the cure of jaundice. The dried fruits are powdered and used as snuff in the treatment of jaundice.



helps in the purification, restoration and nourishment of the liver and is also helpful in the liver detoxification resulting from alcohol intoxication.

#### **Luffa acutangula and hypoglycaemia:-**

Luffa acutangula has certain peptides which are exactly like insulin and cherantin chemicals which help in reducing and urine sugar levels.

#### **Luffa acutangula in constipation:-**

The cellulose fibres present in the Luffa acutangula are help full in the treatment of constipation and also effect in the treatment of piles.

**Luffa acutangula and skin care:-** Luffa acutangula allowed to dry and mature on the vine, it can be harvested has a sponge. This loofah sponge has been used traditionally exfoliating product while bathing. they are considered helpful in removing dead cells from the skin thus making the skin smooth and conditioned. The blood purifying properties the Luffa acutangula are helpful against pimples and acne problems. Loofah sponge is also effective in fighting off foot and body odor.

**Luffa acutangula as immune system booster:-** juice of Luffa acutangula mixed with other healthy vegetables taken daily helps in strengthening of immune system and helps the body fighting off infections effectively.

#### **Luffa acutangula for eyes: -**

The high  $\beta$  carotin content of Luffa acutangula iut in eyes to treat granular conjunctivitis and styes Luffa acutangula is also useful as emetic, expectorant and demulcent

#### **Luffa acutangula ayurvedic remedies:-**

1. For jaundice: One cup Luffa acutangula juice mixed with 2 spoons of sugar, if taken twice

Daily cures jaundice.



2. for bleeding from wound: The Pulp of the Luffa acutangula is ground and applied on the wound. This will stop bleeding from the wounds.

3. For stomach worms: 1 Luffa acutangula boiled in two glasses of water and then adequate Salt is added to it . If this mixture is killed twice daily, stomach worms will be killed. 4. For asthma; Grind the Luffa acutangula to extract ½ cup Luffa acutangula juice mixed With sugar and taken twice a day will cure cancer.

### **Conclusion:**

Luffa acutangula belongs to the family of cucurbitaceae, our review conclude this plant having weight loss, immune system booster, treatment of jaundice, wound healing, anthelmintic, conjunctivitis, expectorant, and skin care.

### **References:**

- [1] “The Plant List: A working List of All plant species” Retrieved 21 November 2014.
- [2] M.M.P.N.D.- sorting Luffa names. Plant names. Unimelb.edu.au (2000-02-06). Retrieved on 2014-05-26.
- [3] Luffa Angled. Kitazawaseed. Com (2014-01-22). Retrieved on 2014-05-26.
- [4] Anonymous: The Ayurvedic pharmacopoeia of India, Ministry of Health and Family welfare Department of ISM & H: part-1, volume-111, 46-48.
- [5] Kalaskar M G and Suranga S J, Pharmacognosytic and Phytochemical investigation of Luffa acutangula var.amara Fruits. International Journal of pham Tech Research, 2(2): 1609-1615,(2010).
- [6] Basu BD, kirtikar KR. Indian medicinal plants. International Book Distributors; (2<sup>nd</sup> edition) vol.2, 1987.
- [7] Torvi J.R, Hunashal R.D. A study on antimicrobial activity of extracts of Luffa acutangula var Amara fruits, International journal of pharma and biosciences, 2012, 3(4), 678.
- [8] Behera Tk, Dey SS, sirohi PS. ‘DBGY’-201 and ‘DBGY’-202: two gynoecious lines in bitter gourd(Momordica charantia L.) Isolated from indigenous source.Indian J Genet 2006; 66:61-62.





P.Vijayasanthi *et al*, Int. Journal of Pharmaceutical Sciences and Medicine (IJPSM),  
Vol.2 Issue. 1, January- 2017, pg. 01-09

ISSN: 2519-9889

- [9] Dashora N, Chauhan LS, Kumar N. *Luffa acutangula*(Linn.) Roxb. var.*Amara* (Roxb.)- A consenses review. *Int J pharma Biosci* 2013; 4(2): 835-846. Pharmacological investigations of certain medical plants and compound formulations used in ayurveda and sidda, CCRAS.
- [10] Aiah T. *Encyclopedia of world medicinal plants*, Daya books, vol 2, 2006, 1271-1274.