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Alternaria sessile- AN UNDERUTILIZED LEAFY VEGETABLE CROP

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The *Alternaria sessilie*, ponnaganiaaku (in Telugu), Honnagone in Kannada, Mukunuwenna (in Sinhala), sessile joyweed, and dwarf copperleaf are some of the common names for the aquatic plant known as Ponnanganni. Particularly in Sri Lanka and certain other Asian nations, it is consumed as a vegetable. The plant naturally grows in the wild, but it is also grown for food, herbal medicines, as an aesthetic plant (red variation, as a hedging plant), in the aquarium industry (despite the fact it only grows submerged for brief periods), and as poultry feed.

Botanical Description

Botanical Name: *Alternantherasessilis* (L.)

Synonyms: *Gomphrenasessilis* L.

Common Name: Sessile Joyweed, Jal Jambvo

Family: Amaranthaceae

Plant Type: Herb

Habit: A 10–30 cm tall, prostrate herb that roots at the lower nodes.

Stem: Simple or branching, yellowish-green, deep-green or reddish-purple, glossy, quadrangular at first, terete when old, with longitudinal row of hairs on two opposed sides as well as with transverse hair lines at nodes, internodes 4–7 cm long

Leaves: Sessile or sub-sessile, opposite, elliptic-oblong, obovate - oblong or oblanceolate, rounded, obtuse or sub-acute at apex, tapering or acute at base, entire along the margins, glabrous or thinly hairy leaves are available.

Inflorescence: Spikes

Flowers: In axillary globose condensed spikes, small, 1.5–2 mm long, whitish or with a pinkish tinge, with 1-celled anthers.

Fruit: Brownish to straw-colored, 2 mm long, obcordate, strongly emarginated, glabrous, and falling off with the perianth tricles. 1-2 mm in diameter, glabrous, and oval seeds. Almost the entire year is when flowers and fruit are in season.

Significance

- People who are poor eat it as a vegetable.
- It is administered to women in postpartum situations in order to stimulate the flow of milk.
- Leaf is applied to spots.

Table 1: Nutritional Content

Content	<i>A.Sessilis</i>
Protein %	16.0
Fat%	3.2
Fibre%	13.4
Calcium%	0.57
Phosphorus %	0.50
Magnesium %	0.64
Potassium %	4.3
Sodium %	0.11
Oxalic acid %	4.7

Medicinal Properties

Eye care

- Ponnangannikeerai, or leaves, are among the greatest treatments for issues relating to the eyes. To treat irritation in the sebaceous glands of the eyelids, fresh leaves are applied in this manner to the lids. Conjunctivitis and chronic eye irritation are also treated by it.

Removes body heat

- The oil that has been extracted from the leaves can be thoroughly massaged into the scalp, left on for about 15 minutes, and then washed out with shampoo.
- This technique maintains the eyes cool while bringing down body heat to a normal level. Repeating the procedure on a regular basis encourages healthy hair growth as well.

Cures Asthma

- Intermittent continuous cough and asthma two tablespoons of ponnanganni juice mixed with one or two garlic cloves should be consumed.

Enhances breast milk

- Consuming cooked ponnangannikeerai and the plant's supple stems benefits breastfeeding moms by enhancing breast milk in addition to preserving liver health.

Food Products from Ponanganikeerai



Kootu for glowing skin



Ponnangani oil for headache and remove to heat from body



Ponnanganidosa for anemia



Ponnangani soup for body pain

Conclusion

Achieving food and nutritional security is hampered by climate change and population expansion. Increased food security and risk reduction can result from the production of a wider variety of food crops. For nutritional security, diverse diets based on a variety of crop species are crucial. The micro, macro, and phytonutrient content of leafy, underutilized vegetables, like ponangani in particular, is notable. These nutrients can greatly improve nutritional security and reduce malnutrition. Because of its low cost, it is therefore important to encourage the intake of this green leafy vegetable, especially among the population's most vulnerable groups. In the future, with this approach, we could fight the malnutrition issues in our nation.

Reference

Anil Kumar Jena, RimiDeuri, Pranamika Sharma, Surya Prakash Singh (2018) ,*Journal of Pharmacognosy and Phytochemistry* 7 (5), 402-407