

VALLARAI

ORIGIN AND BOTANICAL TRAITS

General details

Family	Umbelliferae
Latin name	Centella asiatica Linn
Synonym	Hydrocotyle asiatica
Common name	Tamil - Vallarai Sanskrit - Mandukaparni- Hindi - Brahmamanduki - Gotu Kola English - Indian Pennywort Unani - Khulakudi Bengali - Tholkuri Malayalam - Muttill Gujarati - Karbrahmi Japanese - Tsubokura Tibetan - Sin-mnar

Brahmi and Vallarai

Botanical name	Common name
Centella asiatica	Vallarai
Bacopa monniera	Brahmi

There is some confusion with regard to Vallarai and Brahmi, as they have similar properties.

Careful study of the texts clearly indicate that they are two different plants.

Traditionally, both the products are recognised as being promoters of mental facilities

But Brahmi is assigned a more specific role in treating mental diseases like insanity, anxiety, depression and epilepsy, while Vallarai improves mental function through its more general rasayana effect.

Botanical trait

Vallarai is a creeping herb with leaves that are kidney shaped

Chemical constituent

The primary active constituents include Asiaticosides and Asiatic acid.

Two saponins - brahmoside and brahminoside,
Three triterpene acids - brahmic acid, iso-brahmic acid and betulic acid

Mesoinositol
Centelloside
Asiatic acid,
Asiaticoside
Centellic acid

PRODUCT APPLICATIONS

Application Details

Improves the mind's receptive capacity.

Capable of improving a person's memory power

Used in the treatment of skin diseases such as leprosy

Exhibits significant wound healing activity in normal as well as delayed healing models.

Used in the commercial production of face creams and anti wrinkle creams.

Pharmacology

The centella glycosides when injected into anaesthetised rats significantly lowers the blood pressure.

It is observed that alcoholic extract decreases the acetylcholine and histamine content of the whole brain homogenate of albino rats. Inhibition of the increase in acetylcholine in the brain in stressed rats is observed

Therapeutic Use

Used in various mental disorders. It is regarded as one of the best psychotropic drugs.

Six week treatment in patients of anxiety neurosis reduced anxiety levels and showed improvement in the mental fatigue rate and immediate memory span.

Significant improvement in both general ability and behavioral pattern was obtained in 30 mentally retarded children within 12 weeks.

Significant improvement was observed in the intelligence quotient in children treated with a dose of 0.5g / day of the powder for one year.

In mentally retarded children, a significant increase in the general mental ability, over all general adjustment and mental concentration at the end of 6 months was observed

Constituents Contributing to Use

Vallarai contains many types of active ingredients like are the following

Asiaticosides
Brahmoside
Thiamine
Riboflavin
Pyridoxine
Vitamin K
Asparate
Glutamate
Alanine
Histidine
Calcium and sodium.

The active ingredient saponins affect collagen inhibiting energy and vitality.

Due to high concentration of thiamine, riboflavin and pyridoxine, this assists in converting carbohydrates into glucose as well as for normal nervous system functioning.

The asiaticoside content dissolves the waxy coating of the leprosy bacteria allowing the immune system to destroy the bacteria.

CULTIVATION PRACTICES

Soil conditions	It grows in damp soils or adjacent to ponds and lakes where the soil is perannially wet. It is also grown in paddy fields The plant grows naturally on the banks of streams and ponds and near rice fields.
Propagation	Propagated by cuttings.

	Cutting the new shoots which have roots attached to them and transplanting them in a new pot.
Duration of crop	Perennial crop : 3 months
Planting	Plantlets can be planted in the garden or in a large pot that is placed in the shade. It gives off tender creeper like shoots, which will soon cover the pot. Spacing 35 cm x 15 cm Sapling: 500 kg per acre
Watering	The plant requires profuse watering.
Harvest	The leaves can be harvested within 120 to 150 days
Yield	12000 Kg green leaves per hectare or 2000 to 2500 kg dry leaves per hectare

Process description

The plant of Vallarai is first rinsed in water and cleaned thoroughly to remove adhering mud.

The cleaned portion of the entire plant is taken to a shredder and then shredded to small pieces.

The pieces are taken to a steam jacketed kettle and water added and boiled in the presence of steam till extraction is complete.

The slurry is filtered to separate the liquid(filtrate) and solid (residue).

The residue is taken to a juice extractor to extract the remaining content. . After full extraction, the residue is discarded.

The filtrate is taken back to the steam jacketed kettle and the solution is concentrated

No chemical preservatives such as bisulphites are to be added.

DRIVING FACTORS FOR DEMAND

Traditionally well known product, used as alternative tonic and diuretic

Said to have no side effects and therefore safe for use

The product is likely to become immensely popular in the coming years in view of its capability to improve a person's memory power