

A PROJECT WORK ON ALOE VERA

LINK No: 1-19/25 ,

No : F.MRP-325/2019

(MRP – RUSA 2.0 STC JUNE 2019)

**With Financial Assistance from St Theresa's College for Women (A), Eluru.
Under RUSA 2.0**

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Under The Guidance of

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Sri Y N College (Autonomous), Narsapur

Thrice Accredited by NAAC 'A' Grade

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(2019-2020)

CERTIFICATE

This is to certify that this project work entitled “**ALOE VERA**” is submitted by **K. Bhavya Rani, S. Jaya Sri, II B.Sc. B.Z.C** during the academic year 2019-2020 under my guidance to the Coordinator RUSA.

Signature of the guide

Signature of the Head of the Department

Signature of RUSA Coordinator

Signature of the Principal

DECLARATION

I hereby declare that the project work entitled “**ALOE VERA**” submitted to RUSA 2.0 Scheme, under the guidance of Sri Bh Rama Raju, Dept. of Botany, Sri YN College(A), Narsapur

SIGNATURE OF PROJECT STUDENTS

ALOE VERA

Botanical Name: *Aloe vera* (L.)Burm.

Family: Liliaceae

Vernacular Name:

Sanskrit: Kumari, Ghartkumari

English : Indian aloe, Barbados aloe

Hindi: Ghikuamr

Malayalam: Kattuvala

Tamil: Kattalai

Telugu: Kalabanda

Distribution:

Cultivated or seen wild in the hedge rows in the drier parts of India.

Description:

A coarse perennial with short stem and shallow root system; leaves fleshy in rosettes, sessile, often crowded with horny prickles on the margins, convex below, 45-60 cm long, tapering to a blunt point, surface pale green with irregular white blotches; flowers yellow or orange in racemes; fruits loculicidal capsule.



Propagation:

Propagation by succers.

Parts used:

Leaves and jelly



Chemical Constituents:

The leaves contain barbaloin, chrysofhanol, glycoside and the glycone, aloe – emodin. The mucilage of the leaves contains glucose, galactose, mannose and galacturonic acid in addition to an un identified aldopentose and a protein with 18 amino acids. The plant contains aloesone and alosin.

Uses:

The plant is bitter, sweet, cooling, anthelmintic, aperients, carminative, deobstruent, depurative, diuretic, stomachic, emmenagogue, ophthalmic, and alexeteric. The juice is used in dyspepsia, amenorrhoea, burns, colic, hyoperadenosis, hepatopathy, splenopathy, skin tumours, constipation, spanomenorrhea, vitiated conditions of *vata* and *pitta*, abdominal tumours, dropsy, carbuncles, sciatica, lumbago and flatulence.

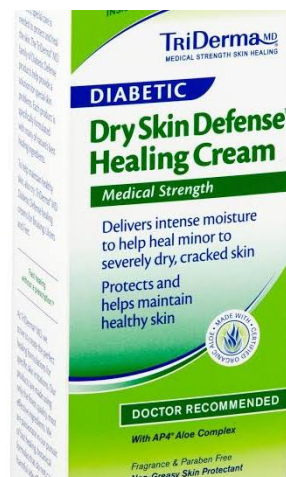
The also is used for helminthiasis in children and is a purgative, anthelmintic and emmenagogue. It is used for local application in painful inflammations, chronic ulcers and catarrhal and purulent ophthalmia.

Leaves:

- Crushed leaves are locally applied on Guinea worm infestation.
- A poultice of the leaves with wheat flour is applied on rheumatic joint.



- In Andhra Pradesh folk medicine a powder of the leaves is given with hot water for diabetic the fresh juice of leaves possesses anti inflammatory and wound healing properties.



- The leaf extract is an ingredient of a cough syrup which showed efficacy in thinning of bronchial secretion in cases of acute bacterial trachio bronchitis.
- The juice of leaves along with juice of *adhatoda*, *zeylanica*, Medic. is found to be an effective and chief drug for common cold and cough.
- Pharmacological studies revealed that extract of fresh leaves exhibits good biostimulatory healing, anti inflammatory.



- A mannose, carrisyn extracted from leaves aids skin, gastrointestinal and general healing.

Aloe gel:

- Aloe gel prepared by remove in the spines and the green sheaths from leaves.
- The remnant thick jelly like mass is cut, blended and filtered to obtain the thick translucent aloe gel.



- This gel can be stabilized and its degradation delayed by using algal polysaccharide or Xanthan gum.
- Bardados aloe is prepared from matured outer leaves they are cut at the base, sliced finally and dried in the sun for three days and then allowed to harden.



- Aloe gel mixed with sugar is applied on burn injuries.



- Therapeutic effect of the gel has been observed in preventing progressive dermal ischaemia caused by burns, frost bite, electrical injury and in intra arterial drug.



- In addition aloe gel was found to increase epidermal cell proliferation and help in skin regeneration.
- The gel is reported to inhibit AIDS virus. It also suppresses tumour formation.
- The gel is used as a dentifrice and in cosmetic lotions for softening skin.





- A tooth paste containing gel has been prepared for preventing gingivitis, controlling plaque, stimulating the growth of new tissues and reducing hazards of bacterial contamination.
- Aloe gel in high concentration inhibits growth of human cancer cells.

Aloe powder:

Aloe powder is prepared by spray drying aloe gel at 60⁰ to 70⁰ for 30 minutes. It is a straw colored, light hygroscopic powder.

Reference Books:

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