



Aloe Vera: A Plant for Many Uses

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ABSTRACT

Aloe Vera is an important medicine plant from liliaceae family with African origin. About 300 Species have been described in the genus Aloe. Aloe Vera consists of two words "aloe" is Latin word of "Truth". Aloe Vera is known as "wonder Plant" and "Miracle Plant" because its extract produces a Sedative reaction that kills bacteria and increase local microcirculation and is used in wound healing. it has 99% of water and contains polysaccharides which act as moisturizers, so it is also useful for making many beauty products, Aloe Vera, a cactus – like plant has been used for traditional medicine purpose for thousands of years. Aloe Vera leaves can be separated into two basic products, the latex, a bitter yellow liquid beneath the epidermis of the leaf and the gel a colorless and tasteless substance in the inner part of the leaf. Both of them have many biologically active components, scientific studies provide support for the application of Aloe Vera in cosmetic moisturizers, toothpastes, etc, food as flavoring compounds or preservative of fresh product and in medicine of human and animals. Aloe Vera seems to treat a variety of conditions because of its immunity, antidiabetic, antioxidant, laxative antibacterial, Antifungal, Antiviral and antitumor effects. Besides these applications it can be also included in the animal diet to utilize their benefits to the maximum extent.

Keywords: - Aloe Vera, Cosmetic, Applications, Food Application Medicinal application, animal, nutrition.

Introduction

Aloe Vera has been used by mankind for thousands of year in folk medicine for therapeutic properties specially on skin. The Greek philosopher Aristotle wrote about the beneficial medicinal effect of aloe vera. The species was first described by Carl Linnaeus in (1753) most of the Aloe plant are not toxic, but a few are extremely poisonous, aloe Vera which is considered to be the most potent and their form the most popular also widely grown as an ornamental plant. It is grown in moist, Subtropical and tropical, location.

Aloe vera is cactus like plants although is relegated to the onion, Garlic and asparagus. It is seamless with triangular, fleshy, leaves ranging in color from gray-green to bright green and in the margin to the leaves has small white teeth. The leaves are composed of three layers an inner gel a yellow sap and the outer thick layer of 15-20 cells called as rind. Aloe Leaves have long been used for medical and cosmetics purpose as well as health, Foods, According to often researchers Aloe Vera can be separated into two basic products, latex and gel. The latex representing approximately 20-30 % by weight of the whole leaf referred as "Aloe Juice" or "Aloe sap" on the other hand the colorless tasteless gel is the pulp or mucilage from the parenchyma cell of the plant in the inner part of leaf. The leaf pulp of Aloe Vera contained 98.5 % water and its alcoholic insoluble portion was mucilage containing organic acid fructose, Hydrolysable sugars and enzyme.

Chemical compounds found in Aloe vera:-



There are more than 200 compounds found in Aloe vera, About 75 of which have Biological Activity. Aloe Vera leaves contain a Diverse array of compounds include Enzymes, Glycosides, Chromones, Carbohydrates Proteins, Glycoproteins, Amino acid, Organic acid lipids sugars, vitamins and minerals. Aloe Vera latex is high in anthraquinones, phenolic compounds that have strong laxative effect while they can act also as antibacterial especially

against “gram-positive Bacteria” “Analgetics” and “Antiviral” A potent source of polysaccharides seems to be “Aloe Vera Gel”. moreover Aloe Vera gel has PH 4.4-4.7 Consists Primarily of water and Poly saccharin and contains vitamins enzymes, steroids etc.

There have been also a few reports of harmful effects of Aloe vera gel such as eczema, Allergic deter mastitis or an increase in circulative leukocyte count probably as result of simulation of “ Immune System”

Mechanism of action use and application Cosmetic uses



Aloe Vera has many uses both for human and animals. Three distinct preparation of the plant are used (1) Aloe Vera Latex (2) Aloe Vera Gel (3) Aloe Vera Whole Leaf Extract.

Whose Biological ingredients may act alone or in synergy The use of Aloe Vera in cosmetic is not new, there are many of them on the market which use Aloe Vera in concentrations varying from 1 to 98 %, it is well known that Aloe Gel enables plant to hold moisture for extremely long periods of time and has soothing effect as well. So Aloe Vera has found and extensive application in the cosmetic and toiletry industries, such as moisturizer, Cleansers, Sun Lotion, Toothpaste, Mouthwashes, saving creams deodorants and shampoos.

Food Uses:-

The food and beverage market is a promising arena for Aloe Vera It has been used as a resource of punctual food such as “yogurt” or for the preparation of health drinks including tea. it is well known that botanical products are widely use as nutritional supplement for promotion of health or presentation of disease Aloe Vera gel can be used. as an edible coating to prolong the quality and safety of fresh products. Aloe Vera does not appear to affect food test or appearance so it seems to be promise as a safe natural and environmentally friendly alternative solution to conventional synthetic preservatives it can be used by the feed industries as sensory additive functional group “Flavoring Compounds” to increase smell or palatability of “feeding Stuff”.

Medicinal Uses:-



Handling Wounds:-

Due to polysaccharides and the growth hormones gibberellins increased collagen and elastin increased collagen and elastin formation may reduce wrinkling . More ever effects are in the treatment of scar tissue and the presentation of scar formation following injury to the skin, Probably are attributed to the activity of the amino acids necessary to new cell formation and due to the ability of its enzyme to promote regeneration of the deepest layer of the skin.

Anti Inflammatory action and immunity activity: -

Aloe Vera has been used to help with arthritis and joint related problems. immunity activity is enhanced by Aloe Vera Polysaccharides.

Effects of skin exposure to UV and X-Radiation: -

Aloe Vera supports the healing of first to second degree burns.

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