



**International Journal of Research
in
Pharmaceutical and Nano Sciences**

Journal homepage: www.ijrpns.com
<https://doi.org/10.36673/IJRPNS.2022.v11.i05.A40>



**AN OVERVIEW OF SOME HERBS USED IN COSMETICS- THEIR ROLES AND
USES**

Ayesha Siddiqua Gazi¹, Mohammed Saleh^{*1}, Md. Idris Ghori²

^{1*}Deccan School of Pharmacy, Darussalm, Aghapura, Hyderabad, Telengana, India.

ABSTRACT

Since ancient times, herbal treatments have been utilized to treat skin conditions. Even the great apes, who are our closest living relatives, use herbal remedies for self-medication (Huffman 2001). Regional trade in ethnobotanical treatments led to the development of particular herbs and their uses based on locally accessible plants. Throughout Europe, the Middle East (Ghazanfar 1994), Africa, India (Behl and Srivastava 2002), China, Japan, Australia and the Americas, distinct regional herbal use systems have emerged. The Ayurvedic herbs in India and the herb combinations created as a part of traditional Chinese medicine (TCM) in China are two well-known systems that are still in use (Xu 2004). Herbal remedies grew less popular in Europe and the US as refined extracts and synthetic chemical medications were more readily available. There has been a rise of in recent years. Patients and, to a lesser extent, doctors are becoming more interested in herbal treatments, particularly those for skin conditions. Herbal remedies that have been utilized for millennia throughout Asia, particularly in China and India, are now the subject of scientific research. The regulatory body Commission E in Germany is in charge of regulating herbal products and their suggested applications (Blumenthal *et al*, 1998). The only way that herbal items are currently regulated in the US is as dietary supplements. Active substances, purity, and concentration are not standardized. Also, there are no rules dictating which herbs can be promoted for particular purposes. This review of herbal remedies includes both the more popular herbs that have been discovered to be effective in the treatment of dermatological conditions as well as those treatments that have scientific data supporting their clinical usefulness.

KEYWORDS

Herbs, Neem, Aloe, Shikakai and Peppermint.

Author for Correspondence:

Mohammed Saleh,
Deccan School of Pharmacy,
Darussalm, Aghapura, Hyderabad, Telengana, India.

Email: mohammadsaleh12344321@gmail.com

INTRODUCTION

Plant Profile

Kingdom: Plantae - Plants

Subkingdom: Tracheobionta - Vascular plants

Division: Magnoliophyta - Flowering plants

Superdivision: Spermatophyta - Seed plants

Class: Liliopsida – Monocotyledons

Subclass: Liliida

Order: Liliales

Family: Liliaceae - Aloe family

Genus: Aloe L-Aloe

Species: Aloe vera (L.) Burm. f. - Barbados aloe

Vernicular name

Bengali and Sanskrit

Ghritakumari, kumari,

Hindi: Guarpatha, ghikanvar

Telugu: Chinnakalabanda

Kan: Lolisara,

Tamil: Chirukuttali,

Malyalam: Kattuvala, Kumari

Oriya: Kumari

Marathi: Korphad

Ayurvedic properties: Rasa, Guna, Veerya, Tikta, Madhura, Gura, Snigda, Seeta.

One of the succulent plants, or succulents, is aloe vera. The aloes that are most important for commerce are perennials with 15 to 30 fleshy leaves that can grow up to 1.5 feet long, 3 to 4 inches at the base, and have saw tooth borders. 60-100cm (24-39 in) tall, offsets help the plants spread. Succulent plants have stems and leaves that hold water. These plants have fleshy cells that can hold a lot of water. They go by the name "meat plants." Without water, they can endure extreme climatic conditions. They can also endure in barren places. These plants produce flowers that are ruby red in color and have a tall stem. Its flowers sprout from the center of the plant, and their leaves are thick and succulent. The flowers bloom in the summer on a spike that can reach a height of 90cm (35 in). Each flower is pendulous and has a yellow tubular corolla that is 2-3cm (0.8-1.2 in) long. The leaves' hue can range from green to grey-green. On the upper and lower leaf surfaces of some varieties of these plants are white dots. The leaf margins of these plants are serrated and feature tiny white teeth. Aloe latex is the name for the gooey fluid found inside aloe vera leaves.

Distribution

Aloe vera is a native plant of Africa. It is most commonly found in Africa, northern America, Egypt, India and Sudan. The species is widely

naturalized elsewhere, occurring in temperate and tropical regions of Australia, Barbados, Belize, Nigeria, Paraguay and the US.

Chemical Constituents

Amino acids, anthraquinones, enzymes, minerals, vitamins, lignins, monosaccharides, polysaccharides, salicylic acid, saponins, and sterols are some of the key chemical components of aloe vera. Aloe vera has isoleucine, leucine, lysine, methionine, phenylalanine, threonine, valine, and tryptophan, among other essential amino acids. Alanine, arginine, asparagine, cysteine, glutamic acid, glycine, histidine, proline, serine, tyrosine, glutamine, and aspartic acid are a few more non-essential amino acids that can be found in aloe vera. Aloe-emodin, emodin, and aloin are the three most significant anthraquinones. Amylase (which breaks down sugars and starches), bradykinase (which boosts the immune system), cellulose (which aids in fat digestion), oxidase, alkaline phosphatase, proteolytiase (which hydrolyzes proteins into their component parts), creatine phosphokinase once or twice and carboxypeptidase are the main enzymes in aloe vera. Catalase (which prevents water buildup. It also contains vitamins A, C, and E along with minerals like zinc and selenium. Aloe vera also contains lignins, a crucial cellulose structural component that contributes to its penetrative properties. Other constituents of Aloe vera would include prostaglandins, tannins, magnesium lactate, resins, mannins, proteins such as lectins, monosulfonic acid and gibberlin. Another constituent of Aloe vera includes saponins. The plant sterols or phytosteroids in Aloe vera include cholesterol, campesterol, lupeol, and B (beta sign) sitosterol. Flavonoids like aloesin, aloeresin D, etc. also present.

Cosmetics uses

Aloe vera is also proved to be a best remedy over the skin disease like psoriasis.

It is also helpful to avoid itching and reduce swelling.

Aloe vera may also be used as a moisturizer for oily skin.

Application of this gel to your skin will make it to look radiant. It has cleansing, soothing and nourishing properties.

It rejuvenates skin.

It removes the dead skin and promotes collagen to prevent wrinkles.

If this gel is applied to head, it is good for hair and scalp.

It has anti-inflammatory properties.

It is also renowned for its anti-fungal and anti-bacterial properties.

These properties make it a widely used product.

Aloesin modulates melanogenesis via competitive inhibition of tyrosinase, thus holding mise as a pigmentation-altering agent for cosmetic and therapeutic applications (Yagi et al., 2003).

The elements in Aloe vera such as amino acids, enzymes, vitamins and minerals are essential for human body.

The aloe gel if applied to scalp restores pH balance of the scalp and encourages hair growth.

Therefore, if used in hair oils, it promotes hair growth and helps to reduce dandruff.

Plant profile

Kingdom: Plantae - Plants

Subkingdom: Tracheobionta - Vascular plants

Superdivision: Spermatophyta - Seed plants

Division: Magnoliophyta - Flowering plants

Class: Magnoliopsida - Dicotyledons

Subclass: Rosidae

Order: Sapindalesz

Family: Meliaceae - Mahogany family

Species: Azadirachta indica A. Juss. - Neem

Vernacular names

San: Arishta, Nimba, Minbaka, **Assam:** Nim,

Beng: Nim, Neemgachh, Neem, **Eng:** Neem, Indian Lilac, Margosa Tree, Nim, Crackjack, Paradise

Tree, White Cedar, Chinaberry, **Guj:** Limba, Limbado, Leemgo, Danu-jhada, Kohalu Limdo,

Hin: Nim, Nimb, Bal-nimb, Neem, Nind, **Kan:** Bevinamara, Bevu, Hebbevu, Kiri-bevu, **Konkani:**

Nim, **Mal:** Aryaveppu, Veppu, Aryaveshnu, Rajavedhu, Vepe, **Marathi:** Kadukhajur, Limba,

Limb, Nimbay, Bakayan, Balanti-limb, Oriya: Kakopholo, Limbo, Nimbu, Nimo, **Telugu:**

Nimbanuv, Vepa, Yeppa, Yapa, Vepachettu, Yapachattu.

Ayurvedic properties

Guna: Laghu, **Rasa:** Tita, kashaya, **Veerya:** Sheeta, **Vipaka:** Katu

Ayurvedic action

According to Ayurvedic principles, kapha and pitta imbalances lead to skin conditions. Neem soothes agitated Kapha and Pitta, aiding in the treatment of skin conditions.

Introduction

A tree of average to great size can reach a height of 30 meters. The opposing, serrated, and acuminate leaflets are part of an imparipinnately complex leaf. The 20-40cm (8-16') long pinnate leaves with 20-31 medium-dark green leaflets that are roughly 3-8cm (1-3') long. The final leaflet is frequently absent. Petioles are brief. Flowers are grouped axillarily, typically in panicles that are up to 25cm (10') long and somewhat drooping. Between 150 and 250 blooms are carried by the inflorescences, which branch up to the third degree. A single blossom measures 5-6mm long and 8-11mm broad. On the same person, protandrous, bisexual, and male flowers coexist. When ripe, the elliptical, one-seeded, drupes measure 1.4-2.8 x 1.0-1.5cm.

Distribution

It is indigenous to Asian nations like Pakistan, India, and Burma. It is widespread throughout the world and grows in tropical and semitropical areas. Deciduous woods are also grown along road sides and farm boundaries throughout India. It typically grows well in regions with sub-arid to sub-humid weather with an annual rainfall range of 400 to 1200mm. It can thrive in areas with annual rainfall of less than 400mm, although in those situations, it is highly dependent on ground water levels. Neem may grow in a variety of soil types, although it prefers deep, sandy soils that have good drainage. It thrives in climates with annual mean temperatures between 21 and 32°C and is a typical tropical to subtropical tree.

Chemical Constituents

Because of its chemical composition, the neem tree provides a wide range of therapeutic benefits. The

azadirachtin content is highest in neem tree seeds. Protomeliacins, limonoids, azadirone and gedunin are components of diterpenoids and triterpenoids. There are also C-secomeliacins such nimbin, salannin and azadirachtin.

Cosmetic uses

In psoriasis, it lowers itching, irritation, roughness of skin, and psoriatic patches and it is astringent and anti-bacterial, which helps wound healing.

It also treats eczema in the same manner. Neem helps to maintain the health of scalp skin and avoids dandruff. Nimbidin was also discovered to be useful against various skin problems like pyorrhea, bleeding gums, and sore throat. It lessens acne infection and inflammation.

Neem oil has moisturizing, regenerative, and restructuring properties and is now widely used in the cosmetic industry alongside other skin care herbs. It is also used in various lotions, pastes, and toothpastes that are prepared in accordance with customary prescription and have effective against pyorrhea (diseases of the gum, tooth, and sockets).

Home Remedies with Neem

Apply crushed fresh leaves of Neem on acne. In case of body acne mix fine paste of fresh neem leaves in little water and smear this mixture on back, chest and shoulders.

In itching, application of neem oil on affected areas helps. Boil neem leaves in a big bowl of water and mix this in bathing water. This reduces body itch.

Massaging Neem oil to scalp removes head lice and prevents formation of dandruff.

Mix dry Neem powder, shikakai and Amla in water and apply this as pack on head. This pack has to be kept for 45 minutes and washed off later. This prevents hair loss and dandruff. Fresh Neem leaves can also be used instead of dry Neem powder.

A freshly prepared paste of turmeric, Neem and sesame seeds is recommended in Ayurveda for fungal infection between toes.

Plant profile

Kingdom: Plantae

(Unranked): Angiosperms

(Unranked): Rosids

(Unranked): Eudicots

Order: Fabales

Family: Fabaceae

Genus: Acacia

Species: A. concinna

Vernacular names

Hindi: Kochi, Ritha, Banritha, **Bengali:** Rithe,

English: Shikakai, **Marathi:** Reetha, **Sanskrit:**

Bahuphenarasa, Bhuriphena, Carmakansa, **Oriya:**

Vimala, **Telugu:** Cheekaya, Chikaya, Gogu,

Seekaya, **Tamil:** Shikakai, Sheekay, Cikalkkai,

Kannada: Sheegae, Shige kayi, Sigeballi, Cige

Malyalam: Cheeyakayi, Chinik-kaya, Shikai,

Cheenikka

Ayurvedic properties

Rasa: Astringent

Vipaka: Pungent

Veerya: Cooling Guna: Heavy Dry

Introduction

The most well-known climbing cosmetic plant is acacia. It has smooth, dark stripes on its thorny branches. Short, broad-based and flattened thorns are present. Caduceus-shaped leaves with non-thorny stipules. The 1-1.5cm long leaf stalks have a noticeable gland in the centre of them. The major rachis of the double-pinnate, 5-7 pairs-strong leaves is prickly and velvety. Each pinna bears 12-18 pairs of oblong-lance-shaped, pointy, 3-10mm long leaflets that are obliquely rounded at the base. Inflorescences are a panicle cluster of two or three stalked, spherical flower heads on the axils of higher reduced leaves. The cluster-carrying stalk is a 1- to 2.5-cm length velvety. When fully grown, flower heads have a diameter of roughly 1cm. Pink flowers without or with fewer subtending bracts are present. The 8cm long, 1.5-1.8cm wide, thick, somewhat flattened, stalked pods. The pods contain 6-10 numbers of seeds inside.

Distribution

This woody plant is native of India and widely distributed in tropical Asia and Southern Asia. This plant located in the rain forest, disturbed forest, open grassland, fields, creek sides, in open areas often a sprawling shrub. It grows at an altitude of 50-1050m.

Chemical Constituents

Pods of *Acacia concinna* contain several saponins including kinmoonosides A-C, triterpenoidal prosapogenols named con- cinnosides A, B, C, D, and E, together with four glycosides, acaciaside (triterpenoid trisaccharide), julibroside A1 (C₅₃H₈₄O₂₂), julibroside A3, albiziasaponin C and their aglycone, acacic acid lactone. The leaves contain oxalic, citric and tartaric acid, tannins, amino acids, proteins and some alkaloids like calyctomine (C₁₂H₁₇O₃N) and nicotine. Bark contains saponin, glucose, etc.

Medicinal uses

Its naturally moderate pH gently cleans the hair without removing its natural oils, earning it the nickname "fruit for the hair" in popular culture.

Shikakai is used to reduce dandruff, strengthen hair roots, and encourage hair growth.

It is a natural conditioner that eliminates oil and filth, prevents fungal infections in the hair, and delays the onset of graying hair by drawing blood from the scalp.

It also serves as a detangler, removing the need for a conditioner or rinse after use.

It is typically regarded as secure. There are occasionally reported stomach complaints, but adverse responses seem to be minor.

The leaves have been infused to make anti-dandruff products. Several skin conditions have been treated with extracts from the ground pods.

Both the scalp and the body are kept cool as a result of this, which also keeps them from drying out.

It promotes restful sleep and has a stimulating and cooling effect on the brain.

It keeps hair clean, silky, and smooth and cures mild scalp eruptions.

It is quite gentle, has a naturally low pH, and does not remove natural oils from hair.

Cosmetic uses

Shampoo is made from a powder called "Shikakai" that is made by drying and grinding the fruit pod, bark, and leaves.

It helps to cleanse the scalp without removing the natural oils because it has a mild acidic pH.

Dandruff, a buildup of dead cells, and dirt at the hair root are all removed.

Shikakai does not produce a lather with a lot of suds.

Reetha powder may be added to boost the suds production

Amla powder may be applied to replenish the nutrients and restore the natural dark color of the hair.

Making soap from decocted shikakai powder and reetha powder to wash delicate fabrics like silk.

Shikakai leaves can be used to make a tea that can be used to wash your face and cleanse your skin.

Traditional home shampoo recipe

Create a runny paste by combining 2 to 3 teaspoons of shikakai powder (ground pods, leaves, and bark) with the same amount of water. The paste should rest all night. Apply the paste to wet hair in the morning, massaging it into the scalp with your fingertips. This will aid in removing dandruff and other debris from the hair's roots. Let the paste around 20 minutes to dry in your hair. Re-apply finger pressure to the scalp after 20 minutes. Until the water is clear, wash and rinse your hair. Virgin coconut oil was traditionally applied to the hair strands after shampooing.

Traditional ayurvedic shampoo preparation

Shikka powder, amla powder (dried fruit without seed) and reetha powder (nut shell) are combined in equal weights to create a dry powder. To one part of the combined dry powder, add three parts of water, and then boil on low for around 4 hours. Add water to the solution, then let it cool.

Plant profile

Kingdom: Plantae - Plants

Subkingdom: Tracheobionta - Vascular plants

Division: Magnoliophyta - Flowering plants

Subclass: Rosidae

Superdivision: Spermatophyta - Seed plants

Family: Euphorbiaceae - Spurge family

Species: *Emblicoefficialis* - Emblic

Class: Magnoliopsida - Dicotyledons

Order: Euphorbiales

Genus: *Emblica* L.-leaf flower

Species: *Emblicoefficialis* - Emblic

Vernacular name

San: Dhatri, Amlaka, Adiphala, **Beng:** Amloki, Amla, **Eng:** Gooseberry, Emblic Myrobalam, **Guj:** Amali, Ambala, **Hind:** Amla, Amlika, **Kan:** Amalak, Bettadanelli, **Mal:** Nellika, **Tam:** Nellikkai, Malanelli, **Tel:** Amalakkamu, Usirikai, **Ory:** Aanla, **Punjabi:** Olay

Ayurvedic properties

Rasa (taste): Sour and astringent are the most dominant, but the fruit has five tastes, including sweet, bitter, and pungent, Veerya (nature): cooling, Vipaka (taste developed through digestion): Sweet, Guna (qualities): Light, dry. Doshas (effect on humors): It is especially effective for pitta.

Introduction

The tree has a crooked trunk, spreading branches, and is modest to medium in size, growing 8 to 18 meters tall. In most cases, branchlets are 10-20cm long, glabrous or coarsely pubescent, and deciduous. The leaves are simple, sub-sessile, and tightly spaced along branchlets. They are light green and resemble pinnate leaves. Yellowish-green flowers are in bloom. Fruits have six vertical stripes or furrows and are roughly spherical, pale greenish yellow, smooth, and firm in appearance.

Distribution

The crop has wide adaptability and can be found in diverse climatic and soil conditions ranging from the Western and Eastern Himalayas, Arawali ranges, Vindhya and Western Ghats. It is common all over tropical and sub-tropical India and also found in Burma. It is abundant in deciduous forests of Madhya Pradesh and in the semi-arid regions of Maharashtra, Gujarat, Rajasthan, Andhra Pradesh, Karnataka, Tamil Nadu and the Arawali ranges in Haryana, Kandi area in Punjab, Himachal Pradesh extending to Ghar area of Uttar Pradesh. It also grows in tropical and subtropical parts of Sri Lanka, Malay Peninsula and China. In Sri Lanka, it is very common in exposed places on Patna land in the moist regions up to 4000 feet altitude.

Chemical Constituents

The fruit contains a significant amount of vitamin C. Phosphatides, an essential oil and a fixed oil are all present in the seeds. Tannin is abundant in the

fruit's bark and leaves. The bark and the root both contain leucodelphinidin and ellagic acid. A stable oil (16%) with a brownish-yellow color is produced by the seeds. Linolenic (8.8%), linoleic (44.0%), oleic (28.4%), stearic (2.15%), palmitic (3.0%), and myristic (1.0%) fatty acids are included in it.

A small amount of amla oil applied on the head prior to bathing cures eye ailments, night blindness, and bilious giddiness. Syphilis, flatulence, bronchitis, asthma, and consumption are all treated with amla confection. Amla has the strongest anti-diabetic effects. Take a fresh 1/4 cup of amla or a teaspoon of amla powder with a teaspoon of turmeric powder each day to prevent diabetes.

Cosmetic uses

One of the most potent rejuvenators is amla fruit. Amla boosts the production of red blood cells and regenerates new tissues. It enhances eyesight, strengthens teeth, eliminates gum bleeding, and cleans the mouth. It supports the development of healthy, lustrous hair, strong nails, and nourishes the bones. The fruits are used to make hair colors and inks for writing. The dried fruit is utilized as hair wash. In perfumery, a leaf-derived essential oil is employed. For two to three days, apply a paste made from 10grams of *Emblica officinalis* bark to the cut or wound area once daily.

Skin lightening: In nations in Asia, the Far East, and the Middle East, skin lightening chemicals are frequently used to either lighten or depigment the skin, whereas in the European market, products are typically used to treat age spots and freckles.

Sore eyes: The leaves are infused and then applied topically. A decoction used as a collyrium (a medical lotion administered to the eye as an eyewash) in ophthalmia is produced when dried fruit is submerged in water in a fresh earthen jar for the duration of the entire night. You can use warm or cold application. Another method of treatment involves using an infusion of the seeds as a collyrium and applying it to recent conjunctivitis inflammations as well as other eye ailments with success. Exudate extracted from fruit incisions is administered topically to eyes with inflammation.

Synonyms

Oleummenthapiperita, Colpermin, Mentha oil.

Biological Source

The fresh blooming tips of the Menthapiperita Linn (family Labiatae) plant are steam-distilled to produce the oil. It is fixed if necessary. Not less than 4.5% and not more than 10% of menthyl acetate-calculated esters, not less than 44% of menthol-calculated free alcohols, and not less than 15% and not more than 32% of menthone-calculated ketone are all present in mentha oil.

Geographical Source

Several Mentha species are grown throughout the world. While it is grown commercially in Japan, England, France, Italy, the United States, Bulgaria, and the USSR, it is a wild plant in Europe. It is grown in India close to Jammu and in the Taral region of Uttar Pradesh.

Menthol cultivation and collection Mint needs fertile, sandy-loam soil that drains easily and has a pH that is neutral. The other conditions for cultivation include a mainfall between 95 and 105cm and a temperature between 15 and 25°C.

The space between two rows is kept at between 50 and 60cm. By regularly hoeing, weeds should be kept away from the plants. Urea (2 to 3%) folliar spray has proven to be advantageous when combined with other fertilizers like superphosphate, potash, etc. As the crop reaches the flowering stage, harvesting is completed. Pests are particularly attracted to the mentha plant. Pest control is shown to be much aided by the use of thiodan (1: 700), endrine 20 EC (T: 700), BHC (10%), sulphur (0.5%) and malathion (5%) treatments.

Preparation of Oil

Mentha plants (Figure No.1.7) are dried to a quarter of their original weight in order to reduce the bulk. It aids in reducing production costs and the amount of time needed for distillation. When dried in direct sunshine, volatile oil is lost. It is best to avoid fermentation while the herb is drying because it has a negative impact on the oil's quality and yield. The material that has been air dried is loaded into a mild steel or galvanized iron still. A faux perforated bottom is present on the still created for this reason.

The medication is then exposed to the pressured steam that the boiler has created. Distillation occurs over the course of 3 to 4 hours. More than 80% of the oil is removed during the first half of the distillation process. Distillation should be finished properly because menthol, which is important for both medical and commercial purposes, is added in the last stages. To enhance the area of condensation, the condenser should be coiled and made of either stainless steel or aluminum. In a separating container, the distillate Le mentha oil is gathered. Menthol oil floats in a separate can because it is lighter than water and insoluble in water. After that, the oil is decanted and filtered.

The herb's typical oil content is reported to range between 0.5 and 1% (v/w), about. About 100 kg of the oil per hectare of the crop per year is supposed to be satisfactory for commercial purposes.

Description

Colour: Colourless to yellow.

Odour: Characteristic and pleasant.

Taste: Pungent followed by cooling sensation.

Solubility: It is soluble in 70% alcohol, ether and chloroform and insoluble in water.

Standards

It is neutral to litmus paper.

Weight per ml is 0.9 to 0.912g

Optical rotation at 25°C is 16° to -30%. (4)

Refractive index - 1.4590 to 1.4650.

Chemical Constituents

Depending on the variety, peppermint oil primarily contains menthol to the extent of 70% in free as well as esters form (like American, Japanese, Indian). Whereas Japanese peppermint oil has 70-90% menthol, American peppermint oil has 80%. Menthone, menthofuran, jasmone, menthylisovalerate, menthyl acetate, and several other terpene derivatives are also significant components of peppermint oil. The other terpenes are things like camphene, limonene, isopulegone, cineole, etc.

Depending on the variety, peppermint oil contains /- menthol mostly to the extent of 70% in free as well as in the form of esters (like American, Japanese, Indian). Japanese peppermint oil has 70-90%

menthol, compared to 80% in American peppermint oil. Menthone, menthofuran, jasmone, menthylisovalerate, menthyl acetate, and a number of other terpene derivatives are some of the peppermint oil's other significant components. Limonene, isopulegone, cineole, pinene, camphene, and other terpenes are among the additional terpenes. While menthofuran induces resinification and generates a foul smell, jasmone and esters are in charge of the flavor's pleasantness.

Uses

Mentha oil, often known as peppermint oil, is used as a stimulant, flavoring, and carminative. It also has a little antiseptic power. It is utilized in several pharmacological dosage forms, including toothpaste, tooth powder, shaving cream, and others. Moreover, it is used to make chewing gum, sweets, jellies, fragrances, and essences. S. H. Kelkar and Co., Bhavna Chemicals, Procter and Gamble Ltd., among other companies, produce menthol in India. Each year, India generates 500 tonnes of menthol.

Menthol and mentha oil both have calcium channel blocking properties that have spasmolytic and smooth muscle relaxing effects, making them both beneficial for irritable bowel syndrome. When administered as enteric coated capsules for release in the large intestine, they exhibit a superior pharmacokinetic profile. Using muscle relaxants during colon endoscopy helps to minimize spasm. Emulsified oil is injected through the biopsy channel of the endoscope for this reason. By promoting bile flow, mentha oil exhibits digestive action. The leaf's flavonoid pigments also help this. The leaf's azulene is thought to have anti-inflammatory and anti-ulcer properties. The U.S.F.D.A. considers menthol to be widely recognized as safe for its nasal decongestant function (GRAS). For its antitussive properties, mentha oil is utilized for inhalation as well as topical treatments and lozenges.

Synonyms

Spearmint leaves, Mint, Menthaviridis Stotch-spearmint, common spearmint.

Biological Source

This consists of dried leaves and flowering tops of the plant known as Menthaspicata Linn. (Menthaviridis Linn) or Menthacardiaca Geranol ex. Baker belonging to family Labiatae.

Geographical source

Spearmint is indigenous to Europe, but extensively cultivated in North America and Asia. More than 30,000 acres of land is under cultivation of spearmint in Washington state alone, Michigan, Indiana, Idaho, Yakima are the other places where it is cultivated commercially.

Macroscopic character

Colour: Green to dark green, stems are purple

Odour: Aromatic, and characteristic

Taste: Aromatic (but not followed by cooling sensation as in peppermint) leaves are sessile, flowers are arranged in spikes.

Chemical Constituents

It mostly contains volatile oil, around 0.5 to 1.0% resin, and tannins. Not less than 50% of the compound eucalyptol, as well as trace amounts of pinene, cineole, and phellandrine, are present in spearmint oil. The plant is steam-distilled to produce spearmint oil, which is yellowish in color and has the distinctive minty scent.

0.930 to 0.940 specific gravity

48° to 59° of optical rotation

1.4820 to 1.4900 as the refractive index

At least 50% of the oil's constituent, l-carvone, is present, with smaller amounts of linalool, pinene, cineole and phelleandrene.

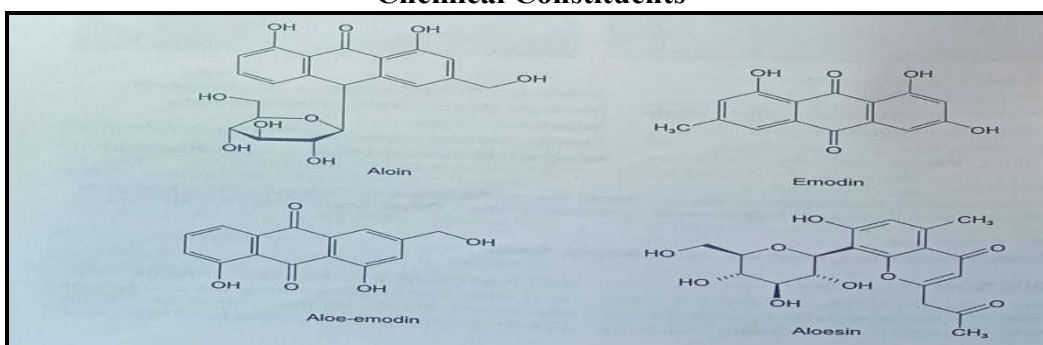
Uses

Spearmint is used as carminative, flavour and source of spearmint oil is used as flavour mainly for tooth-pastes, mouth-washes, chewing gums and also for sauces and cosmetic products.

Aloe vera



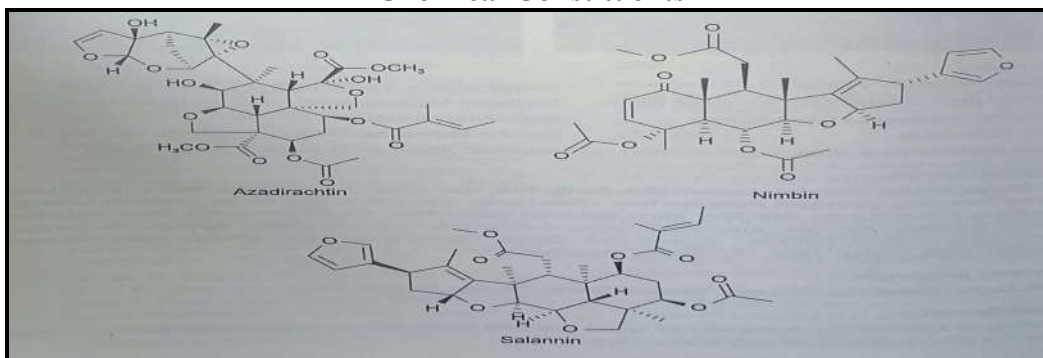
Chemical Constituents



Azadirachta indica



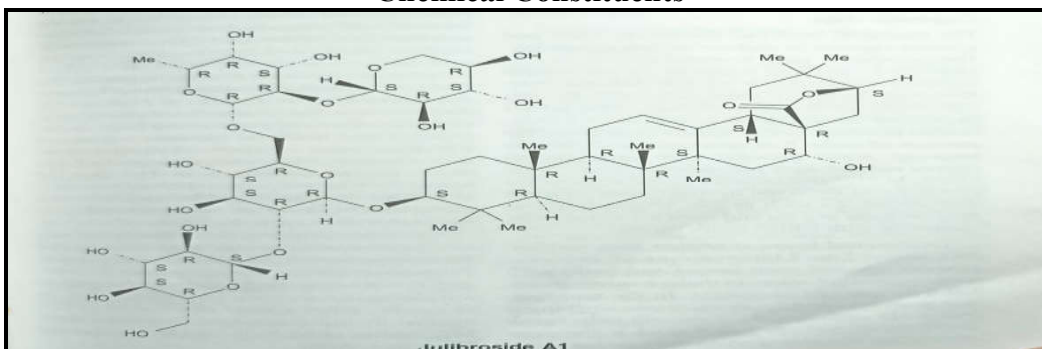
Chemical Constituents



Acacia concinna



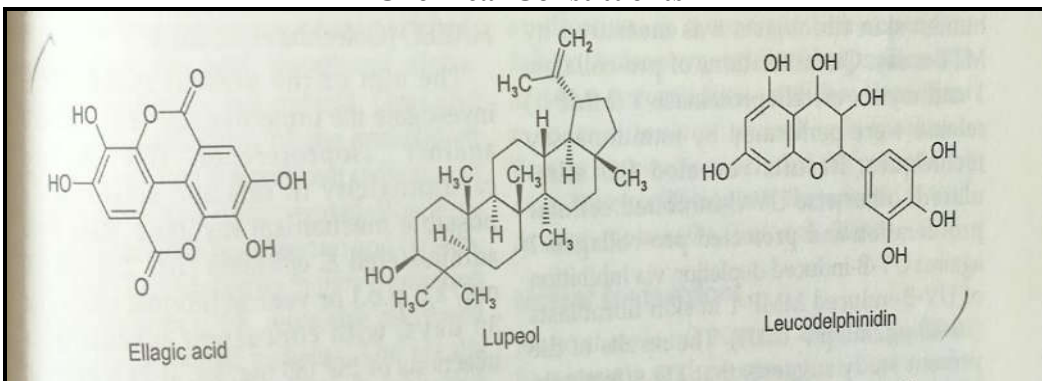
Chemical Constituents



Emblica officinalis



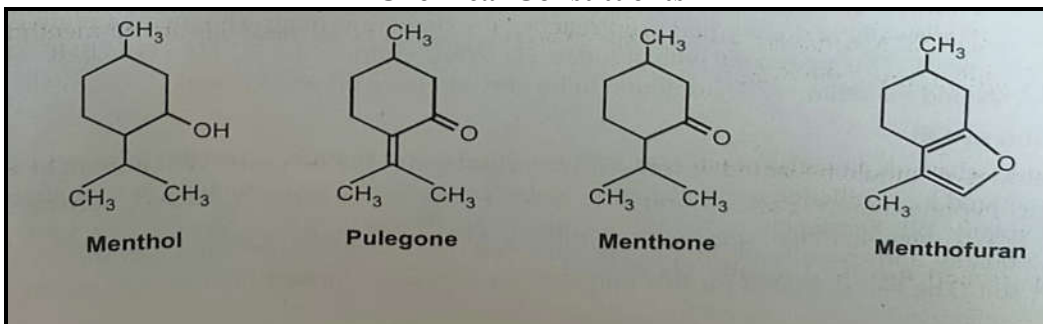
Chemical Constituents



Peppermint oil



Chemical Constituents



Spearmint



CONCLUSION

Aloe Vera can also be used as moisturizer for oily skin
Azadirachtaindica can also be used as an antibacterial agent and astringent
Acacia concinna is also used in hair care preparation
Emblica officinalis is also used to clean the mouth and strengthen the teeth
Peppermint oil is also used as a carminative, stimulant and flavoring agent.

ACKNOWLEDGEMENT

The authors wish to express their sincere gratitude to Deccan School of Pharmacy, Darussalm, Aghapura, Hyderabad, Telengana, India for providing me necessary facilities and guideline to carry out this review work.

CONFLICT OF INTEREST

We declare that we have no conflict of Interest.

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