IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 7, March 2024

Evaluating the Efficacy of Common Traditional Medicinal Plants

Nitin Saini[1] and Dr. Masood Ahmed Siddiqui[2]
Research Scholar, Department of Pharmacy[1]
Professor, Department of Pharmacy[2]
Sunrise University, Alwar, Rajasthan, India

Abstract: *Since the Vedic period, medicinal herbs have been used. They have been used for thousands of years to both cure and prevent various illnesses and epidemics. Certain medicinal herbs are also used to flavour, colour, preserve food, and make appetising sauces. Nearly every part of the plant has some kind of medical use. Various secondary metabolites that are present in medicinal plants and are used to make medications as well as play a significant role in a variety of diseases. Numerous plants are also said to have a broad range of additional benefits, including anti-inflammatory, anti-oxidant, anti-insecticidal, anti-parasitic, antibacterial, and anti-hemolytic qualities. These benefits are reportedly used by tribal people all over the globe. This review article discusses the traditional therapeutic applications of 21 species of plants from various families.*

Keywords: Traditional medicine, Medicinal plants

I. INTRODUCTION

Plant products have been used for over 5,000 years to heal illnesses and revitalise biological systems. Evidence of this may be found in the medical records of Indian, Egyptian, Chinese, Greek, and Roman civilizations [1]. All classes of people in India employ a vast range of potentially therapeutic plants, both as processed pharmaceutical industry products and as traditional medicines in various indigenous medical systems including Siddha, Ayurveda, and Unani [2]. Of the approximately 4.5 million plant species found in India, only between 250,000 and 500,000 of those species have been the subject of phytochemical research for their potential biological or pharmacological effects [3]. The pharmaceutical industry may use bioactive components or plant extracts as a new formulation for the creation of innovative medications to treat a variety of disorders [4]. Herbal remedies like ashwagandha and brahmi can improve immunity, increase nutrients, repair body cells, and promote energy [5]. Aromatic and medicinal plants may contribute significantly to the improvement of rural residents' subsistence livelihoods, particularly for women, in a way that preserves the environment and preserves the biodiversity of these natural resources [6]. As much as 80% of the world's population now receives their primary healthcare from traditional medicine, according to the World Health Organisation (WHO). The utilisation of medicinal plants to treat a variety of ailments and the creation of indigenous medicines have significant financial advantages. Most people, particularly those living in rural areas, are still compelled to use traditional medicine to treat common illnesses because there are fewer communication options, poverty, ignorance, and a lack of access to modern healthcare facilities [7]. One of the best things for both individual and community health is medicinal plants. Certain chemically active compounds that have distinct physiological effects on the human body provide plants their therapeutic worth [8]. In addition to being a potential alternative source of insecticides, plants are thought to be a rich source of bioactive compounds [9]. Plant secondary metabolites, often known as phytochemicals, exhibit a wide range of notable pharmacological properties, including hypoglycemic, anti-oxidative, anti-allergic, and anti-carcinogenic effects. These secondary metabolites shield cells from the harm that unstable substances called free radicals may do [10]. The use of naturally occurring antibacterial substances, particularly those derived from plants, to preserve food is gaining popularity. Thus, it is necessary to look for herbs that have therapeutic value [11].

However, older men and women between the ages of 41 and 70 possess the knowledge and understanding of herbal medicines. The current generation's decreasing usage of therapeutic herbs may eventually cause them to go out [12].

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 7, March 2024

Medicinal Values

Abrus precatorius Linn.- Because Abrus precatorius plants have developed in favourable conditions, it is very difficult to remove their deep roots. Additionally, the plant's aggressive growth, hard-shelled seeds, and ability to sucker make it difficult to control infestations and even more difficult to prevent re-infestations. Herbicides like glyphosate work well, but their use requires finesse to avoid overdoing it.[13]

Aegle marmelos (Linn.) Correa.- The bael tree yields alkaloids such as á-fargarine (allocryptopine), O-isopentenylhalfordinol, and O-methylhafordinol, as well as flavonoids such rutin and marmesin and furocoumarins including xanthotoxol and the methyl ester of alloimperatorin [14]. The bael fruit, which has several health benefits, is one of the environment's gifts to humanity. This tree's whole composition—stem, bark, root, leaves, and fruit at all stages of maturity—has long been valued for its therapeutic properties. Blessed is the Tree of Bael, possessing many healing qualities, some of which are still being researched for practical uses. more than the tasks mentioned above, there aren't many more significant tasks. Aegle marmelos leaves may be used to treat defences, conjunctivitis, leucorroea, and jaundice. Fruits provide nourishment and energy. It is an effective astringent and carminative as well as a useful snake bite treatment [15].

Allium sativum Linn.- Alliin, ajoene, diallyl polysulfides, vinyldithiins, and S-allylcysteine are sulfur-containing chemicals that may be obtained from fresh or crushed garlic; other compounds that can be obtained include enzymes, saponins, flavonoids, and Maillard reaction products.

Aloe barbadensis Mill.- Aloe vera is applied to face tissues, where it is touted as an anti-irritant and moisturiser to lessen nose chafing. Cosmetic manufacturers often include aloe vera sap or other derivatives into cosmetics, tissues, moisturisers, soaps, sunscreens, incense, shaving creams, and shampoos.[16]

Butea monosperma Linn.- Butea monosperma is utilised in dye, medicinal, feed, lumber and resin applications. The soft, dingy white wood is utilised for water scoops and well-curbs since it is waterproof. In several Hindu rites, spoons or ladles fashioned of this tree are used to pour ghee into the fire. You can get good charcoal out of it.

Calotropis procera R. Br.- "Cardiac aglycones" are steroidal heart poisons that are among the complex mixture of compounds found in milky sap. These are members of the same chemical family as Digitalis purpurea, or foxgloves, which include related compounds. The steroidal component consists of an α,β-unsaturated-γ-lactone in the C17 position, a second hydroxyl group connected to the C14 carbon, a C/D-cis ring junction, and a hydroxyl group in the C3β position.

Carica papaya Linn.- Ripe papaya fruit is often eaten raw, devoid of seeds and peel. Cooked unripe green fruit may be enjoyed in stews, salads, and curries. Southeast Asian cuisine uses green papaya both raw and cooked [17]. Papaya skin, pulp, and seeds contain a wide range of phytochemicals, which rise in the skin and pulp as the fruit ripens. These phytochemicals include carotenoids and polyphenols [18], as well as benzyl isothiocyanates and benzyl glucosinates.[19] Prunasin, another cyanogenic compound, is also present in papaya seeds.

Cuscuta reflexa Roxb.- Numerous chemicals known to inhibit alpha-glucosidase are found in Cuscuta reflexa. The stems of Cuscuta reflexa plants have been stripped of a novel flavanone called reflexin, tetrahydrofuran derivatives, and coumarin. Stem methanol extracts were discovered to have antibacterial and antisteroidogenic properties. The Cuscuta reflexa plant is claimed to be helpful in treating heart and eye disorders in Ayurvedic medicine [20]. The decoction of the stems is beneficial for bilious illness, liver problems, constipation, and gas.

Hibiscus rosa-sinensis Linn.- It may have some potential in cosmetic skin care for example, an extract from the flowers of Hibiscus rosa-sinensis has been shown to function as an anti-solar agent by absorbing ultraviolet radiation.[21]

Mentha spicta Linn.- Mentha spicta, sometimes known as spearmint oil, is utilised for its fragrant oil. The primary ingredient that gives spearmint its unique scent is R-(–)-carvone, which is also quite prevalent in spearmint oil. Significant concentrations of limonene, dihydrocarvone, and 1,8-cineol are also present in spearmint oil. [22] In contrast to peppermint oil, spearmint oil has very little menthol and menthone in it. It is used to toothpaste and candies as a flavouring, and it is also sometimes included to shampoos and soaps. Spearmint essential oil works well as an insecticide against adult moths when used as a fumigant.[23]

Nerium oleander Linn.- Since several of the chemicals in Nerium oleander may be hazardous when ingested in high quantities, particularly by animals, the plant has traditionally been classified as poisonous. These substances include the

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 7, March 2024

cardiac glycosides oleandrin and oleandrigenin, which have a limited therapeutic index and may be harmful if consumed.

Acacia mormelos Linn.- With only 100 g of lemons containing 64% of the Daily Value, they are an excellent source of vitamin C. Nonetheless, the content of other important nutrients is negligible. Numerous phytochemicals, including as tannins, terpenes, and polyphenols, are found in lemons.[24] They contain high levels of citric acid, as do other citrus fruits (approximately 47 g/l in juice). [25]

Mimosa pudica Linn.- The poisonous alkaloid mimosine, which is present in Mimosa pudica, has been shown to have apoptotic and antiproliferative properties. The mucilage produced by Mimosa pudica seeds is composed of D-glucuronic acid and D-xylose. [26]

Syzygium cumini (Linn.) Skeels.- Unani and Chinese remedies for digestive problems. From the fruit, vinegar and wine are also made. It contains a high content of both vitamin C and vitamin A [27].

Evolvulus alsinoides Linn.- This herb's alleged nootropic and psychotropic qualities have led to its usage in East Asian traditional medicine.[28] Despite the fact that these statements lack medical validation. E. alsinoides has been shown to contain the chemical compounds scopoletin, umbelliferone, scopolin, and 2-methyl-1,2,3, 4-butanetetrol. [29]

Dalbergia sissoo Roxb. Ex. DC.- Ethanolic extract of the Dalbergia sissoo fruits exhibited molluscicide effect against the freshwater snail Biomphalaria pfeifferi eggs. [30]

Curcuma longa Linn- Turmeric has been used topically to heal wounds and cure skin sores, as well as internally in Ayurvedic and Siddha therapies, for a range of internal diseases, including indigestion, throat infections, common colds, and liver problems.[31]

Tagetus erecta Linn.- To guarantee that egg yolks and grill skin are properly coloured, dried flower petals that have been crushed into a powder are added to chicken feed. This is particularly important when there isn't enough well-pigmented yellow maize in the feed.[32] This is still used today, although it's usually in the form of an extract, which may offer benefits including improved stability, higher utilisation, and less costs for transportation and storage. Crustaceans' colouring is also improved by it [33].

Withania somnifera Linn. Dunal-The long, dark, tuberculate roots of the plant have been used for generations in Indian traditional medicine. [34–35] The dried leaves are pounded into a powder and used as a treatment to wounds and burns in Yemen, where it is referred to as ubab [36].[37] Withania somnifera plant leaves are used to relieve joint discomfort and reduce swelling [38, 39].

Bacopa monnieri (L.)- The traditional Ayurvedic therapy for epilepsy and asthma includes the use of bacopa.[39] Additionally, ulcers, tumours, ascites, inflammations, leprosy, anaemia, and gastroenteritis are among the conditions for which it is utilised in Ayurveda.[40] The plant may be used to treat a wide range of medical issues. Boosting memory, curing indigestion, neutralising allergic responses, and lowering anxiety and stress are just a few of the benefits for the plant [41].

Ficus racemosa Wau. Cat.- One of the plants included in the ancient Ayurvedic texts is Ficus racemosa Linn. (FR) (Family Moraceae). Folk medicine uses several components of F. racemosa, including the fruits, bark, and root, to cure a variety of illnesses, including diabetes mellitus. The hepatoprotective, hypoglycemic, and anti-inflammatory properties of F. racemosa have been shown in experimental investigations [42].

Table 1: Traditional medicinal plants used in the treatment of human and animals ailments

S. No.	Botanical Name	Common Name	Family	Used Part	Habit	Plant Properties
1.	**Abrus precatorius Linn.**	Ghunchu	Fabaceae	Leaves	Shrub	Leaf juice is mixed with coconut oil and applied over the painful swellings of the body
2.	**Aegle marmelos (Linn.) Correa.**	Bel	Rutaceae	Fruit	Tree	Half of a ripe fruit is eaten twice a day for 3-4 days to cure constipation

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 7, March 2024

3.	**Allium sativum Linn.**	Lahshun	Amaryllidaceae	Bulb	Herb	3-4 cloves are taken raw twice a day for a week to get relief from stomach pain and gastric
4.	**Aloe barbadensis Mill.**	Gwarpatha	Liliaceae	Leaf pulp	Herb	About 2 teaspoons of juice is taken thrice a day for 3-4 days to cure fever
5.	**Butea monosperma Linn.**	Palas	Fabaceae	Root	Tree	Root are used in tuberculosis
6.	**Calotropis procera R. Br.**	Madar	Asclepiadaceae	Latex of whole plant	Shrub	The latex is useful in the treatment of the ringworm and skin disease
7.	**Carica papaya Linn.**	Papita	Cariaceae	Latex of fruit	Tree	Latex fruit is used in ringworm and eczema
8.	**Cuscuta reflexa Roxb.**	Amarbel	Convolvulaceae	Whole plant	Parasitic Herb	Juice of the plant mixed with juice of Saccharum officinarum is given in doses of about 3-4 teaspoons twice a day is given for 10-12 days to treat jaundice
9.	**Hibiscus rosa-sinensis Linn.**	Gudhal	Malvaceae	Root	Shrub	Juice of the root about 3 teaspoons is given 3 times a day for 3-4 days in case of cough and cold
10.	**Mentha spicta Linn.**	Pudina	Lamiaceae	Leaf	Herb	2-3 teaspoons of leaf juice is given thrice a day for 3-4 days to treat bloody dysentery
11.	**Nerium oleander Linn.**	Kaner	Apocynaceae	Latex of plant	Tree	Latex applied on muscles pain of limbs
12.	**Acacia mormelos Linn.**	Babool	mimosaceae	Flower	Tree	Flower powder mixed with water is given orally to animal twice a day to cure jaundice
13.	**Mimosa pudica Linn.**	Lajwanti	Mimosaceae	Roots and leaves	Hurb	Roots and leaves are crushed and filtered; one teaspoon of filtrate is taken with water twice a day to cure loose motion
14.	**Syzygium cumini (Linn.) Skeels.**	Jamun	Myrtaceae	Bark	Tree	Crush its bark with the bark of bamura (Acacia catechu) in equal amount and filter it. Take 5 ml. of filtrate with 5 ml. water twice a day in gripping and indigestion
15.	**Evolvulus alsinoides Linn.**	Shankhahuli	Convolvulaceae	Leaves	Herb	20-25 leaves are crushed and mixed in 200 ml. whey and taken orally twice a day for 2 days in gripping
16.	**Dalbergia sissoo Roxb. Ex. DC.**	Shisham	Fabaceae	Leaves	Tree	Leaf paste mixed with water is given to animal twice a day to cure blisters and leg sore
17.	**Curcuma longa Linn**	Haldi	Zingiberaceae	Rhizome	Herb	Rhizome powder with rock salt and pure ghee is to cure the swelling of nipple for animals
18.	**Tagetus erecta Linn.**	Genda	Asteraceae	Flower	Herb	Powder mixed with water is given to animals to cure hydrophobia

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 7, March 2024

19.	**Withania somnifera Linn. Dunal**	Ashwagandh a	Solanaceae	Root	Herb	Given to animals to cure retard placenta
20.	**Bacopa monnieri Linn.**	Brahmi	Plantaginaceae	Leaves	Herb	Boosting memory
21.	**Ficus racemosa Wau. Cat.**	Gular	Moraceae	Root	Tree	The sap of root is given in diabetes

II. CONCLUSION

We may infer from the research above that plants have very diverse lives. Every component of the plant benefits all living things in the cosmos. These 21 medicinal plants are being examined for treating a variety of human and animal ailments, including fever, diabetes, asthma, menstruation problems, piles, dysentery, jaundice, stomach discomfort, constipation, snake bites, and skin diseases, in the current small review study. These plant species include both cultivated and wild varieties. Herbs made up the majority of medicinal plants, followed by shrubs, trees, and climbers. And the plant parts that were utilised medicinally included the rhizome, fruits, flowers, bark, leaves, and roots.

REFERENCES

[1]. Mahesh B and Satish S. Antimicrobial activity of some important medicinal plant against plant and human pathogens. WJAS, 2008; 4:839–843.
[2]. Srinivasan D, Nathan S, Suresh T. Antimicrobial of certain Indian medicinal plants used in folkloric medicine. Journal of Ethnopharmacolog, 2007; 74:217- 220.
[3]. Singh V, Kumar R. Study of Phytochemical Analysis and Antioxidant Activity of Allium sativum of Bundelkhand Region. Int. J. Life. Sci. Scienti. Res., 2017; 3(6): 1451-1458.
[4]. Singh P, Singh R, Sati N, Sati O P, Ahluwalia V. Phytochemical and Pharmacological Significance of Genus: Impatiens. Int. J. Life. Sci. Scienti. Res., 2017; 3(1):868-881.
[5]. P Nishant. Role of Medicinal Plants (Brahmi and Ashwagandha) in the Treatment of Alzheimer's Disease Int. J. Life. Sci. Scienti. Res., 2016; 2(1):15-17.
[6]. Sharma A, Singh H, Kumar N. Studies on Traditional Knowledge of Medicinal Flora and its Contribution to Livelihood Enhancement in the Doon-Valley, Uttrakhand (India). Int. J. Life. Sci. Scienti. Res., 2017; 3(2):951-960.
[7]. Sarad S, Sharma A, Kumar N. Distribution, Diversity, Indigenous Use and its Utilization of the Ethno medicinal Flora of Rajouri District, J & K, India. Int. J. Life. Sci. Scienti. Res., 2017; 3(1):820-827.
[8]. Yadav R, Khare RK, Singhal A. Qualitative Phytochemical Screening of Some Selected Medicinal Plants of Shivpuri District (M.P.). Int. J. Life. Sci. Scienti. Res., 2017; 3(1): 844-847.
[9]. Narendiran S, Janani D, Keerthana M, Nivethitha KS, Nirmala Devi S, Padmavathy S, Supraja TS, Sayeedur Rahman H, Velvizhi R, Swathi N, Yasaswini KG. Comparative Studies on in-vitro Phytochemicals Analysis and Larvicidal Efficacy of Medicinal Plant Extracts against Culex quinquefasciatus. Int. J. Life. Sci. Scienti. Res., 2016; 2(6): 742-748.
[10]. Harini K, Nithyalakshmi V: Phytochemical Analysis and Antioxidant Potential of Cucumis Melo Seeds. Int. J. Life. Sci. Scienti. Res., 2017; 3(1): 863-867.
[11]. Chavan PA: Evaluation of Antimicrobial activity of Various Medicinal Plants Extracts of Latur Zone against Pathogens. Int. J. Life. Sci. Scienti. Res., 2016; 2(5): 612-618.
[12]. Sharma N. Ethno-medicinal Survey of Area under Aritar Gram Panchayat Unit, East Sikkim, India. Int. J. Life. Sci. Scienti. Res., 2017; 3(3): 1007-1015.
[13]. Langeland, K.A et al. Identification and Biology of Nonnative Plants in Florida's Natural Areas- Second Edition (PDF). University of Florida- IFAS Pub SP. Center for Aquatic and Invasive Plants, 2008; pp: 257.
[14]. Rasadah Mat Ali, Zainon Abu Samah, Nik Musaadah Mustapha, Norhara Hussein. ASEAN Herbal and Medicinal Plants. Jakarta, Indonesia: Association of Southeast Asian Nations, 2010; pp. 43.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 7, March 2024

[15]. Gurjar PS, Lal N, Gupta AK, Marboh ES. A Review on Medicinal Values and Commercial Utility of Bael. International Journal of Life-Sciences Scientific Research, 2015; 1(1):5-7.

[16]. Reynolds T. Aloes: The genus Aloe. Medicinal and Aromatic Plants- Industrial Profiles. CRC Press. Ed., 2004.

[17]. Natty Netsuwan. Green Papaya Salad Recipe. ThaiTable.com. Retrieved, 2013-06-15.

[18]. Rivera-Pastrana DM, Yahia EM, González-Aguilar GA. Phenolic and carotenoid profiles of papaya fruit (Carica papaya L.) and their contents under low temperature storage. J Sci Food Agric. 2010; 90:2358–65.

[19]. Rossetto MR, Oliveira do Nascimento JR, Purgatto E, Fabi JP, Lajolo FM, Cordenunsi BR. Benzylglucosinolate, benzylisothiocyanate, and myrosinase activity in papaya fruit during development and ripening. J Agric Food Chem. 2008; 56(20): 9592–9.

[20]. Chopra RN, Chopra IC, Handa KL, and Kapur LD. Tribulus terrestris. Chopra's Indigenous Drugs of India. U N Dhur & Sons Private Limited, Kolkata, 1958; pp: 430.

[21]. Nevade Sidram A., Sachin G. Lokapure and N.V. Kalyane. Study on anti-solar activity of ehanolic extract of flower of Hibiscus rosa-sinensis Linn. Research Journal of Pharmacy and Technology, 2011; 4(3):472-473.

[22]. Hussain, Abdullah I, Anwar, Farooq, Nigam, Poonam S, Ashraf, Muhammad, Gilani, Anwarul H. Seasonal variation in content, chemical composition and antimicrobial and cytotoxic activities of essential oils from four Mentha species. Journal of the Science of Food and Agriculture, 2010; 90(11):1827–36.

[23]. Eliopoulos PA, Hassiotis CN, Andreadis SS, Porichi AE. Fumigant toxicity of essential oils from basil and spearmint against two major Pyralid pests of stored products. J Econ Entomol. 2015; 108 (2): 805–10.

[24]. Rauf A, Uddin G, Ali J. Phytochemical analysis and radical scavenging profile of juices of Citrus sinensis, Citrus anrantifolia, and Citrus limonum. Org Med Chem Lett, 2014; 4(5):1-3.

[25]. Penniston KL, Nakada SY, Holmes RP, Assimos DG. Quantitative Assessment of Citric Acid in Lemon Juice, Lime Juice, and Commercially-Available Fruit Juice Products. Journal of Endourology. 2008; 22(3):567–570.

[26]. Restivo A, Brard L, Granai CO, Swamy N. Antiproliferative effect of mimosine in ovarian cancer. Journal of Clinical Oncology, 2005; 23(16suppl): 3200-3200.

[27]. Luximon-Ramma, Amitabye. Antioxidant actions and phenolic and vitamin C contents of common Mauritian exotic fruits. Journal of the Science of Food and Agriculture, 2003; 83:496–502.

[28]. Amritpal Singh. Review of Ethnomedicinal Uses and Pharmacology of Evolvulus alsinoides Linn. Ethnobotanical Leaflets. 2008; 12:734-740.

[29]. Cervenka F, Koleckar V, Rehakova Z, Jahodar L, Kunes J, Opletal L, Hyspler R, Jun D, Kuca K. Evaluation of natural substances from Evolvulus alsinoides L. with the purpose of determining their antioxidant potency. J Enzyme Inhib Med Chem. 2008; 23(4):574–578.

[30]. Adenusi AA and Odaibo AB. Effects of varying concentrations of the crude aqueous and ethanolic. African Journal of Traditional, Complementary and Alternative medicines, 2009; 6(2):139-149.

[31]. Nelson KM, Dahlin JL, Bisson J, et al. The Essential Medicinal Chemistry of Curcumin: Miniperspective. Journal of Medicinal Chemistry. 2017; 60(5):1620–1637.

[32]. W. Leigh Hadden; Ruth H. Watkins; Luis W. Levy; Edmundo Regalado; Diana M. Rivadeneira; Richard B. van Breemen & Steven J. Schwartz. Carotenoid composition of marigold (Tagetes erecta) flower extract used as nutritional supplement. Journal of Agricultural and Food Chemistry. 1999; 47(10):4189–4194.

[33]. Ponce-Palafox JT, Arredondo Figueroa JL, & Vernon Carter EJ. Carotenoids from plants used in diets for the culture of the Pacific white shrimp (Litopenaeus vannamei). Mexican Journal of Chemical Engineering. 2006; 5(2):157–165.

[34]. Mirjalili MH, Moyano E, Bonfill M, Cusido RM, Palazon

[35]. J. Steroidal Lactones from Withania somnifera, an Ancient Plant for Novel Medicine. Molecules. 2009; 14(7): 2373–2393.

[36]. Pandit S, Chang KW, Jeon JG. Effects of Withania somnifera on the growth and virulence properties of Streptococcus mutans and Streptococcus sobrinus at sub-MIC levels. Anaerobe. 2013; **19**:1–8.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 7, March 2024

[37]. Hugh Scott & Kenneth Mason. Western Arabia and the Red Sea. London: Naval Intelligence Division. 1946; pp: 597.

[38]. "Herbal Medicine in Yemen: Traditional Knowledge and Practice, and Their Value for Today's World". Ingrid Hehmeyer and Hanne Schonig. Islamic History and Civilization. **96**. Leiden: Brill. 2012, pp: 200.

[39]. Singhal A, Khare RK, Yadav R. Comparative Study of Some Ethnomedicinal Plants among the Tribals of Datia and Sheopurkalan District (M.P.). Int. J. Life. Sci. Scienti. Res., 2017; 3(1):838-843.

[40]. Rajani, M.; et al. Ramawat, K. G., ed. Biotechnology of Medicinal Plants: Vitalizer and Therapeutic. Enfield, NH: Science Publishers, 2004.

[41]. Oudhia, Pankaj. Bramhi (Bacopa monnieri). Society for Parthenium Management (SOPAM), 2014; Retrieved July 30, 2017.

[42]. Dua, J. S., Prasad, D. N., Tripathi, A. C., and Gupta, R. Role of traditional medicine in europsychopharmacology. Asian J Pharm Clin Res, 2009; 2(2):72-76.

[43]. Li RW, Leach DN, Myers SP, Lin GD, Leach GJ and Waterman PG. A new anti-inflammatory glycoside from Ficus racemosa (L.). Planta Med. 2004; 70: 421-426.