Journal of Advance Research in Science and Social Science (JARSSC) **ISSN:** 2582-2004
Official Publication of Indian Mental Health & Research Centre Volume 03, Issue 02

DOI: 10.46523/jarssc.03.02.18
Multidisciplinary, Open Access

A Review on Some Traditional Medicinal Plants

Dr. Amber Hasan

Asst. Professor, Department of Botany, Shia P. G. College, Lucknow

INTRODUCTION

The therapeutic potential of plant products can be traced back to over five thousand years ago as there is evidence of its use in the treatment of diseases and for revitalizing body systems in Indian, Egyptian, Chinese, Greek and Roman civilizations [1]. In India, plants of therapeutic potential are widely used by all sections of people both as folk medicines in different indigenous systems of medicine like Siddha, Ayurveda, and Unani and also as processed product of pharmaceutical industry [2]. India has about 4.5 million plant species and among them estimated only 250,000-500,000 plant species, have been investigated phytochemically for biological or pharmacological activity [3]. The bioactive constituents or plants extracts may be uses for treatment of various diseases and these would be used as a new formulation for the novel drugs discovery in pharmaceutical industries[4]. Herbal medicines such as Brahmi and Ashwagandha help boost one's energy level, increase nutrients, restore body cells, and enhance a person's immunity [5]. Medicinal and aromatic plants can play an important role in the subsistence livelihood enhancement rural people, especially women in an environmentally sustainable manner while maintaining the biodiversity of these natural products [6]. Today according to the World Health organization (WHO), as many as 80% of the world's people depend on traditional medicine for their primary healthcare needs. There are considerable economic benefits in the development of indigenous medicines and in the use of medicinal plants for the treatment of various diseases. Due to fewer communication means, poverty, ignorance and unavailability of modern health facilities, most people especially rural people are still forced to practice traditional medicines for their common day ailments [7]. Medicinal Plant is of the great of the health of individual and communities. The medicinal value of plants lies in some chemical active substances that produce define physiological action on the human body [8]. Plants are considered as a rich source of bioactive chemicals and they may be an alternative source of mosquito control agents [9]. Secondary metabolites or phytochemicals from plants have eminent pharmacological activities such as anti-oxidative, anti- allergic, antibiotic, hypoglycaemic and anti-carcinogenic. These secondary metabolites protect the cells from the damage caused by unstable molecules known as

Received: 10.09.2020 **Accepted:** 20.10.2020 **Published**: 20.10.2020

free radicals [10]. There are growing interests in using natural antimicrobial compounds, especially extracted from plants, for the preservation of foods. There is therefore the need to search for plants of medicinal value [11].

However, the knowledge as well as awareness on the herbal remedies is held by elder males and females of between the age group of 41-70 years. Now, decline in the use of the medicinal plants by the new generation may gradually lead to the fading away [12].

Medicinal values

***Abrus precatorius* Linn.-** *Abrus precatorius* plants have grown to development under encouraging circumstances, their deep roots are extremely difficult to

remove, and the plant's aggressive growth, hard-shelled seeds, and ability to sucker, renders an infestation extremely difficult to eradicate and makes it very difficult to prevent re-infestation. Herbicides such as glyphosate are effective but need skilled application if they are not to do more harm than good.[13]

***Aegle marmelos* (Linn.) Correa.-** The bael tree contains furocoumarins, including xanthotoxol and the methyl ester of alloimperatorin, as well as flavonoids, rutin and marmesin; a number of essential oils; and, among its alkaloids, á-fargarine(allocryptopine), *O*-isopentenylhalfordinol, *O*-methylhafordinol [14]. Bael fruit is one of the blessings from environment for the mankind, which is filled with enormous medicinal advantages. All parts of this tree from stem, bark, root; leaves and fruit at all stages of maturity have medicinal value and have been used as medicine for a long time. Tree of the Bael is a blessed tree and it has numerous therapeutic properties, some of their realistic applications are still under evaluation. Apart from the activity listed above there is little more important activity. The leaves of *Aegle marmelos* are useful in the treatment of jaundice and leucorroea, conjunctivitis and defenses. Fruits give energy and nutrition. It is used in the carminative and astringent and also a good remedy for snake bite [15].

***Allium sativum* Linn.-** Fresh or crushed garlic yields the sulfur-containing compounds alliin, ajoene, diallyl polysulfides, vinyldithiins, *S*-allylcysteine, and enzymes, saponins, flavonoids, and Maillard reaction products, which are not sulfur-containing compounds.

***Aloe barbadensis* Mill**.- *Aloe vera* is used on facial tissues where it is promoted as a moisturiser and anti- irritant to reduce chafing of the nose. Cosmetic companies commonly add sap or other derivatives from *Aloe vera* to products such as makeup, tissues, moisturizers, soaps, sunscreens,

Received: 10.09.2020 **Accepted:** 20.10.2020 **Published**: 20.10.2020

incense, shaving cream, or shampoos.[16]

***Butea monosperma* Linn**.- *Butea monosperma* is used for timber, resin, fodder, medicine, and dye. The wood is dirty white and soft and, being durable under water, is used for well-curbs and water scoops. Spoons/Ladles made of this tree are use in a variety of Hindu rituals to pour Ghee into the fire. Good charcoal can be obtained from it.

***Calotropis procera* R. Br**.- The milky sap contains a complex mix of chemicals, some of which are steroidal heart poisons known as "cardiac aglycones". These belong to the same chemical family as similar chemicals found in foxgloves (*Digitalis purpurea*). The steroidal component includes an hydroxyl group in the C3β position, a second attached to the C14 carbon, a C/D-*cis* ring junction and an α,β-unsaturated-γ-lactone in the C17 position.

***Carica papaya* Linn**.- Papaya ripe fruit is regularlyeaten raw, without skin or seeds. The unripe green fruit can be eaten cooked, usually in curries, salads, and stews. Green papaya is used in Southeast Asian cooking, both raw and cooked [17]. Papaya skin, pulp, and seeds enclose a multiplicity of phytochemicals, including polyphenols and carotenoids,[18] as well as benzyl isothiocyanates and benzyl glucosinates, with skin and pulp levels that increase during ripening.[19] Papaya seeds also contain the cyanogenic substance prunasin.

***Cuscuta reflexa* Roxb.-** *Cuscuta reflexa* is known to contain a number of alpha-glucosidase inhibitory compounds. A new flavanone- reflexin, tetrahydrofuran derivatives and a coumarin have been cut off from the *Cuscuta reflexa* plant stems. Methanol extracts of the stem reportedly demonstrated anti-steroidogenic and antibacterial activities. In Ayurvedic medicine, the *Cuscuta reflexa* plant is said to be useful in diseases ofeye and heart [20]. The stems in decoction are useful in constipation, flatulence, liver complaints and bilious affection.

***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* is used for itsaromatic oil, referred to as oil of spearmint. The mainly abundant compound in spearmint oil is R-(–)-carvone, which gives spearmint its distinctive smell. Spearmint oil also contains significant amounts of limonene, dihydrocarvone, and 1,8-cineol. [22] Unlike oil of peppermint, oil of spearmint contains minimal amounts of menthol and menthone. It is used as a flavour for tooth paste and confectionery, and is

Received: 10.09.2020 **Accepted:** 20.10.2020 **Published**: 20.10.2020

DOI: 10.46523/jarssc.03.02.18
Multidisciplinary, Open Access

occasionally additional to shampoos and soaps. Used as a fumigant, spearmint essential oil is an effective insecticide against adult moths.[23]

***Nerium oleander* Linn.**- *Nerium oleander* has historically been measured a poisonous plant since some of its compounds may exhibit toxicity, especially in animals, when consumed in large amounts. Among these compounds are oleandrin and oleandrigenin, known as cardiac glycosides, which are known to have a narrow therapeutic index and can be toxic when ingested.

***Acacia mormelos* Linn.-** Lemons are a rich source of vitamin C, providing 64% of the Daily Value in a 100 g serving. Other essential nutrients, however, haveinsignificant content. Lemons contain numerousphytochemicals, including polyphenols, terpenes, and tannins.[24] As with other citrus fruits, they have significant concentrations of citric acid (about 47 g/l in juice). [25]

***Mimosa pudica* Linn.-** *Mimosa pudica* contains the toxic alkaloid mimosine, which has been found to also have antiproliferative and apoptotic effects. *Mimosa pudica's* seeds produce mucilage made up of D- glucuronic acid and D-xylose. [26]

***Syzygium cumini* (Linn.) Skeels.-** Unani and Chinese medicine for digestive ailments. Vinegar and wine are also prepared from the fruit. It has a high source of vitamin A as well as vitamin C [27].

***Evolvulus alsinoides* Linn.-** This herb used in traditional medicine of East Asia for its purported psychotropic and nootropic properties.[28] Although such claims are not medically verified. Chemical compounds isolated from *E. alsinoides* include 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**- In Ayurvedic and Siddha practices, turmeric has been used as an attempted treatment for a variety of internal disorders, such as indigestion, throat infections, common colds, or liver ailments, as well as topically, to cleanse wounds or treat skin sores.[31]

***Tagetus erecta* Linn.-** The dried flower petals, ground to a powder is used in poultry feed to ensure a good colouration of egg yolks and broiler skin, especially in the lack of well-pigmented yellow maize in the feed.[32] This is still a use today, but now regularly in the form of an extract

Received: 10.09.2020 **Accepted:** 20.10.2020 **Published**: 20.10.2020

Journal of Advance Research in Science and Social Science (JARSSC) **ISSN:** 2582-2004
Official Publication of Indian Mental Health & Research Centre Volume 03, Issue 02
DOI: 10.46523/jarssc.03.02.18
Multidisciplinary, Open Access

which may have advantages of lower transport and storage cost, better stability and better utilization. It is also used to enhance coloring incrustaceans [33] .

***Withania somnifera* Linn. Dunal-** The plant's long, brown, tuberous roots have been used for centuries in traditional Indian medicine. [34-35] In Yemen, where it is known as *ubab*,[36] the dried leaves are ground to a powder from which a paste is made and used for burnsand wounds.[37] Leaves of the *Withania somnifera* plants used in Joint pain [38] and Reduce swelling [38].

***Bacopa monnieri* (L.)-** Bacopa has been used in the customary Ayurvedic treatment for asthma and epilepsy.[39] It is also used in Ayurveda for ulcers, tumors, ascites, enlarged spleen, inflammations, leprosy, anemia, and gastroenteritis.[40] The plant is useful as a treatment for many health complications. Some of the uses of the plant include reducing anxiety and stress, neutralizing allergic reactions, treating indigestion, and boosting a person's memory [41].

***Ficus racemosa* Wau. Cat.-** *Ficus racemosa* Linn.(FR) (Family Moraceae) is one of the plants mentioned inthe ancient scriptures of Ayurveda. Different parts of *F. racemosa* (fruits, bark, as well as root) are used in folk medicine for the treatment of numerous diseases including diabetes mellitus. Experimental studies have demonstrated the anti-inflammatory, hepatoprotective andhypoglycemic effects of the *F. racemosa* [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 overthe 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 cureconstipation
3.	***Allium sativum* Linn.**	Lahshun	Amaryllidaceae	Bulb	Herb	3-4 cloves are taken raw twicea day for a week to

Received: 10.09.2020 **Accepted:** 20.10.2020 **Published**: 20.10.2020

Journal of Advance Research in Science and Social Science (JARSSC) **ISSN:** 2582-2004
Official Publication of Indian Mental Health & Research Centre Volume 03, Issue 02

DOI: 10.46523/jarssc.03.02.18
Multidisciplinary, Open Access

						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 daysto 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 andskin disease
7.	***Carica papaya* Linn.**	Papita	Cariaceae	Latex of fruit	Tree	Latex fruit is used in ringwormand 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 ofabout 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 aday 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 daysto treat bloody dysentery

Received: 10.09.2020 **Accepted:** 20.10.2020 **Published**: 20.10.2020

Journal of Advance Research in Science and Social Science (JARSSC) **ISSN:** 2582-2004
Official Publication of Indian Mental Health & Research Centre Volume 03, Issue 02

DOI: 10.46523/jarssc.03.02.18
Multidisciplinary, Open Access

11.	***Nerium oleander* Linn.**	Kaner	Apocynaceae	Latex of plant	Tree	Latex applied on muscles painof limbs
12.	***Acacia mormelos* Linn.**	Babool	mimosaceae	Flower	Tree	Flower powder mixed with water is given orally to animaltwice a day to cure jaundice
13.	***Mimosa pudica* Linn.**	Lajwanti	Mimosaceae	Roots and leaves	Hurb	Roots and leaves are crushedand filtered; one teaspoon offiltrate 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. Take5 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 andmixed 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 isgiven to animal twice a day to cure blisters and leg sore
17.	***Curcuma longa* Linn**	Haldi	Zingiberaceae	Rhizome	Herb	Rhizome powder with rock saltand pure ghee is to cure the swelling of

Received: 10.09.2020 **Accepted:** 20.10.2020 **Published**: 20.10.2020

DOI: 10.46523/jarssc.03.02.18
Multidisciplinary, Open Access

						nipple for animals
18.	***Tagetus erecta* Linn.**	Genda	Asteraceae	Flower	Herb	Powder mixed with water isgiven to animals to cure hydrophobia
19.	***Withania somnifera* Linn. Dunal**	Ashwagandha	Solanaceae	Root	Herb	Given to animals to cure retardplacenta
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

CONCLUSIONS

From the above study we conclude that plants have a very versatile life style. Every part of the plant is serving as a boon for all living ones all over the universe. In the present minor review project, these 21 medicinal plants studied for the treatment of many diseases of human beings along with animals diseases such as stomach pain, constipation, piles, dysentery, jaundice, diabetes, fever, asthma, menstrual disorders, snake bite, skin diseases etc. These plant species include both wild and cultivated ones. Majority of the medicinal plants were herbs than shrubs trees and climbers respectively. And the part of the plants which used for medicinal purpose was leaves, root, flower, bark, fruits, rhizome etc.

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.

Received: 10.09.2020 **Accepted:** 20.10.2020 **Published**: 20.10.2020

[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.

[15] Gurjar PS, Lal N, Gupta AK, Marboh ES. A Review on Medicinal Values and Commercial

Received: 10.09.2020 **Accepted:** 20.10.2020 **Published**: 20.10.2020

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 spearmintagainst 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

Received: 10.09.2020 **Accepted:** 20.10.2020 **Published**: 20.10.2020

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. 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.

[32] 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.

[33] Mirjalili MH, Moyano E, Bonfill M, Cusido RM, Palazon J. Steroidal Lactones from *Withania somnifera,* an Ancient Plant for Novel Medicine. Molecules. 2009; 14(7): 2373–2393.

[34] 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.

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

[36] "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.

Received: 10.09.2020 **Accepted:** 20.10.2020 **Published**: 20.10.2020

DOI: 10.46523/jarssc.03.02.18
Multidisciplinary, Open Access

[37] 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.

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

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

[40] 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.

[41] 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.

Received: 10.09.2020 **Accepted:** 20.10.2020 **Published**: 20.10.2020