

Ethnobotanical Study of Qur'an Plants

Nurul Qamariah*

Nurul Qamariah*

Pharmacy Department, Faculty of Health Sciences, Universitas Muhammadiyah Palangkaraya, Palangka Raya, Central Kalimantan 73111, INDONESIA.

Correspondence

Nurul Qamariah

Pharmacy Department, Faculty of Health Sciences, Universitas Muhammadiyah Palangkaraya, Palangka Raya, Central Kalimantan 73111, INDONESIA.

Phone no: +6285751144479;

Fax: (0536)3222184;

E-mail: n_qiyu@rocketmail.com

History

- Submission Date: 22-04-2019;
- Review completed: 20-05-2019;
- Accepted Date: 20-05-2019.

DOI : 10.5530/pj.2019.11.147

Article Available online

<http://www.phcogj.com/v11/i5>

Copyright

© 2019 Phcogj.Com. This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International license.

ABSTRACT

Introduction: In Islam, ethical teachings of biomedical ethics are linked with a Holy Qur'an and Prophet Muhammad (PBUH). Al-Quran is one of the best reference books describing the importance of plants for medical benefits. There are 28 chapters (Surah) which mention specific name of plants in Al-Qur'an. This paper aims to compile the up-to-date information about some medicinal plants that mentioned in Al-Qur'an. **Methods:** Comprehensive and detailed information about plants has been collected from Ayat and Surah in the Qur'an which states the specific name of the plant. Plant identities are arranged in a systematic sequence of confirmed botanical names from literature such as books, journal articles, and online databases, followed by Indonesian names, English names, families, references from the Qur'an, parts used, chemical content, And medicinal properties. The pharmacological claims of plants mentioned in the Qur'an, enriched by the search for scientific evidence available in journals and books. **Results:** Based on the collected data, there are 27 plant species mentioned in Al-Qur'an. In this paper, plants species were arranged in a systematic order of identity of the plant, followed by Indonesian name, English name, Family, references cited from Holy Quran, Part used, Chemical constituents, and efficacy of herbal medicine that has been used both empirically and scientifically. **Conclusion:** In this paper, attempts have been made to compile up-to-date knowledge of 27 species medicinal plants mentioned in the Qur'an, which can be used as a quick reference guide for further studies in ethnobotany.

Key words: Ethnobotanical study, Qur'an plants, Medicinal plants.

INTRODUCTION

In Islam, the disease can be healed in two ways, first healing the soul through prayer and both healing through drugs curing illness through drugs. Islamic medicine started from the Prophet Adam AS to the time of Prophet Muhammad SAW and the exploration and compilation of this drug continues throughout the world.¹ The Qur'an is a Muslim Scripture that has very clearly illustrated the importance of plants through certain letters in the Qur'an.

There are many potential plants as medicines already mentioned in the Muslim Scriptures of the Qur'an, which can provide pharmacological effects due to their nutritional or phytotherapeutics value. Several articles have identified the medicinal plants mentioned in the Qur'an and explored the benefits of phytotherapeutics both empirically and pharmacologically with different approaches. This paper will attempt to compile up-to-date information on medicinal plants mentioned in the Qur'an, thus generating articles that can be used as quick reference guides for further studies in ethnobotany.

Allah Almighty with His greatness and power has created the universe and its contents and with all its perfection has created various kinds of plants as one of the signs of His power. The diversity of plants can be used as medicinal plants, where the system of medicine in Islam has long been exemplified by Prophet Muhammad SAW, called Ath-Thibbun Nabawi (medication of the way of the Prophet) is a method of treatment used by Prophet Muhammad SAW when treating the illness he suffered, or

he ordered the family and friends to do so. Al-Qur'an, hadith saheeh and *atsar* of the *Companions* narrated through the path that is accounted for by the rules of science of hadith is the source used as a reference method of treatment.² According to Al-Jauziyah,³ several methods of treatment of Prophet Muhammad SAW is using treatment with natural medicine (herbal). Some herbs that are used as natural remedies (herbs) have been mentioned in the Qur'an where the study of modern science has found that these herbs have properties to treat illnesses.

MATERIALS AND METHODS

The writing of this article is done by collecting data from scientific articles that have made a review of the plants mentioned in the Qur'an. Comprehensive and detailed information about plants has been collected from Ayat and Surah in the Qur'an which states the specific name of the plant. Plant identities are arranged in a systematic sequence of confirmed botanical names from literature. To evaluate the electronic plant databases the following websites were searched: Google, scientific information database (SID) : www.theplantlist.org, ministry of healthcare, and also search in other electronic databases such as Google Scholar, Scopus, and PubMed. The keywords used for the search process are the names of Indonesia and/or Latin names to find out studies related to these plants. Plants species were arranged in a systematic order of identity of the plant, followed by Indonesian name, English name, Family, references cited from Holy Qur'an, Part used, Chemical constituents, and efficacy of herbal medicine that has been used both empirically and scientifically.

Cite this article: Qamariah N. Ethnobotanical Study of Qur'an Plants. Pharmacogn J. 2019;11(5): 919-28.

RESULTS AND DISCUSSION

In the Qur'an and hadith, some plants are expressed as beneficial food, and or as medicine. Some of them have been widely known, but some may still sound unfamiliar, one of the causes of the extraneous plants is that the less explicit translations refer to the natural material.

Based on the data the authors have collected, there are several articles covering the plants mentioned in the Qur'an, with different approaches, and the most recent article states that there have been identified 28 Surahs (chapters) and 47 verses which are mentioned specific names of plants. This finding is limited to a total of 27 species of medicinal plants.⁴

Based on the results of data collection, there are several terms of plants in the Qur'an, where some terms are interpreted more than one plant. As Acacia and Bananas are interpreted in the Qur'an as "Talḥ", two plants, namely *Alhagi maurorum* Medik and *Tamarix mannifera* (Ehrenb.) Bunge are identified as "Al-Mann" and three plants, namely Cedar, Indian jujube and Lote-tree interpreted from language Al-Qur'an "Sidar", and four plants, namely Bastard cinnamon, camphor tree, borneocamphor and henna, interpreted as "kafur". The same Qur'anic language, but interpreted to be more than one plant is likely due to different interpretations and views on Qur'anic verses.⁴

Table 1: The data collection of medicinal plants mentioned in the Qur'an.

Number	Name	
1	<i>Acacia seyal</i> Delile	
	Indonesia name	pohon penaga
	English name	acacia, shittim wood, white-galled acacia, whistling thorn, white thorn, white whistling thorn
	Name in the Qur'an	Talḥ
	Family	Fabaceae
	Parts used	sap, bark, wood, leaves ⁴
	References from the Qur'an	Surah 56. Al-Waqi'a, Verses 27-35 ⁵
	Chemical Content	Acacia seyal pod contains more than 20% protein ⁶
	Efficacy as medicine	bark, leaves and sap are used for colds, diarrhea, bleeding, jaundice, headaches and burns. The decoction of bark is used to treat leprosy and dysentery, is a stimulant and acts as a laxative for humans and animals. Exposure to smoke from wood burning is believed to relieve rheumatic pain. The decoction of the roots is mixed with <i>Combretum glutinosum</i> leaves and condensed milk causes strong diuresis. Acacia is used in drug emulsions and troches, helping to mask the effects of bitter substances. Plant extracts act as antibacterial, antimicrobial, and antioxidant ^{4,6,7}
	2	<i>Alhagi maurorum</i> Medik
Indonesia Name		-
English name		Manna; Caspian manna, Persian Manna plant
Name in the Qur'an		Mann
Family		Leguminosae
Parts used		oil from leaves and stems, flowers and roots
References from the Qur'an		Surah 2. Al-Baqara, Verse 57; Surah 7. Al-A'raf, Verses 160; Surah 20. Ta-ha, Clause 80 ^{5,9}
Chemical content		Flavonoids, fatty acids, coumarins, sterols, vitamins, alkaloids, carbohydrates, tannins, unsaturated sterols, triterpenes, flavanones and glycosides. ⁹
Efficacy as medicine		diaphoretic, expectorant, laxative, laxative, diuretic, antiulcer ^{4,9,10} . Used also to overcome the pain of rheumatism, bilharzia, liver and inflammation of the urinary tract and also used for various types of gastrointestinal discomfort. This plant is shown to have anti-diarrheal activity and encourages relaxation of smooth muscle and anti-nociceptive effects. The flowers are used to treat piles, migraines, and warts. Oil from the leaves is used in the treatment of rheumatism. Water extract from its roots is used to enlarge the ureter and to remove kidney stones ^{5,50} .
3		<i>Allium cepa</i> L.
	Indonesian name	Bawang merah
	English name	Onion
	Name in the Qur'an	Basal
	Family	Amaryllidaceae
	Parts used	rhizomes, leaves, and seeds
	References from the Qur'an	Surah 2. Al-Baqara, Verses 61 ⁵
	Chemical content	Bulbs contain essential oils with sulfur constituents, including allylpropylsulfide, allicin, allin, flavonoids, phenolic acids, sterols, diphenylamine, proteins, carbohydrates, calcium, iron, and vitamins A, B, C. ^{5,11,53}
	Efficacy as medicine	antimicrobial, inflammatory, fattening, fatigue, eczema, urinary, emollient, emmenagogue, expectorant, carminative, diuretic, anodyne, tonic, stomatitis, anti-aging, flatulence, bronchitis, splenomegaly, hepatomegaly, pneumopathy, ophtalmia, Otagia, phyringodynia, malaria, lumbar, epilepsy, tumors, wounds, paralysis, arthralgia and leukoderma, hypertension, asthma, cholera, colds, cough, influenza, earache, aphrodisiac, headache, eye disease, baldness, dysentery, Jaundice, tuberculosis. ^{4,11,12}

Number	Name	
4	<i>Allium sativum</i> L	
	Indonesian name	bawang putih
	English name	Garlic
	Name in the Qur'an	Foume
	Family	Amaryllidaceae
	Parts used	Rhizomes
	References from the Qur'an	Surah 2.Al-Baqara, Verses 61 80 ⁵
Chemical content	Cordinine A and B, saponins, allacin, allylprophyldisulphide, glucoside from kaempferol and quercitin, sterols and hydrocarbons. Contains starch, albumin, calcium, iron, and vitamin-C and essential oils ^{5,13} .	
Efficacy as medicine	worm medicine, hypertension, stimulant, gastritis, antiseptic, antimicrobial, antidote, wound healer, paralysis, facilitate digestion, asthma problems, cough, hysteria, headache, tuberculosis ^{4,13,14}	
5	<i>Brassica nigra</i> (L.) W.D.J.Koch	
	Indonesia Name	Sesawi hitam
	English name	Black mustard
	Name in the Qur'an	Khardal
	Family	Brassicaceae
	Parts used	whole parts of plants, seeds.
	References from the Qur'an	Surah 21. Al-Anbiyaa, Verse 47; Surah 31. Luqman, Verse 16 ⁵
Chemical content	seeds contain: glucoside, singirin, sinapine and essential oils ⁵	
Efficacy as medicine	Anthelmintic, cough, enlarged spleen, itching, skin diseases, tumors, rheumatism, neurotonic pain, rheumatoid arthritis, pulmonary edema, paralysis, migraine, epilepsy, diuretic, nausea, tumor, antiseptic ^{15,16}	
6	<i>Cedrus libani</i> A. Rich.	
	Indonesia Name	Aras
	English name	Ceder, Lebanon
	Name in the Qur'an	Sidar
	Family	Pinaceae
	Parts used	leaves, stems, roots, oil from wood
	References from the Qur'an	Surah 34. Saba, Verse 16; Surah 53.An-Najm, Verses 12-15; Surah 53. An-Najm, Verses 16-18 ⁵
Chemical content	oleoresin from bark consists of 83% resin acid and 17% non-synchronized component. Commonly observed resin acids occur in oleoresins except for pimaric acid. Its main constituents are sandaracopimaric and abietic acid. In addition to pimaric acid also levopimaric acid can not be detected in oleoresin skin. The main constituent of oleoresin skin is isopimaric acid in cedar ^{5,17}	
Efficacy as medicine	Leprosy, animal skin disease, anti-parasites, insects, and lice, anti-microbial and anti ulcerogenic ^{4,17}	
7	<i>Cinnamomum aromaticum</i> Nees	
	Indonesia Name	Kayu manis
	English name	Cassia, Bastard Cinnamon
	Name in the Qur'an	Kafur
	Family	Lauraceae
	Parts used	leaves, roots, and twigs
	References from the Qur'an	some interpretations define kafur as cinnamon, Surah 76. Al-Insan verse 5 ^{4,5}
Chemical content	essential oils, eugenol are widely present in leaves, safrol, sinamaldehyde, tannins, calcium oxalate, dammar, and tanners. Other chemical components of cinnamon essential oils are ethyl cinnamate, betacofophylene, linalool and cavalol metal ⁴	
Efficacy as medicine	Rheumatism, sprains, bronchitis pain, asthma, indigestion, muscle aches, tuberculose, headache, liver and kidney, toothache, cholera, breast pain and sexual stimulants ⁴	
8	<i>Cinnamomum camphora</i> (L.) J. Presl	
	Indonesia Name	Kamfer
	English name	Camphor tree
	Name in the Qur'an	Kafur
	Family	Lauraceae
	Parts used	Leaves, roots, and branches
	References from the Qur'an	Surah 76. Al-Insan verse 5 ⁵
Chemical content	sesquiterpen Essential oils, comphorenone, compherenol; The root contains: Alkaloids, laurolistsine, reticuline; Leaves contain: palmitone; Stem wood contains: cyclopentenone ¹⁸	
Efficacy as medicine	Used in bronchial asthma, hysteria, satyriasis, nocturnal emission, spermatorrhea, colic, diarrhea, dysentery, nausea, vomiting, rheumatism, sprains, bronchitis, asthma, indigestion, muscle aches, tuberculoses, headache, liver and kidney, toothache, cholera, breast pain and sexual stimulants ^{4,18,19}	

Number	Name	
9	<i>Lawsonia inermis</i> L.	
	Indonesia Name	Pacar kuku
	English name	Henna
	Name in the Qur'an	Kafur
	Family	Lythraceae
	Parts used	leaves, stems, bark, roots, flowers, and seeds
	References from the Qur'an	Surah 76. Al-Insan verse 5 ⁵
Chemical content	lawsone (2-hydroxy-1,4-naphthoquinone) derived from naphthoquinone, 1,4-naphthoquinone, hemip side A, B, C, laxantone I, II, III, apigenin, triterpenoid ²⁰	
Efficacy as medicine	Rheumatoid arthritis, headache, ulcer, diarrhea, leprosy, analgesic ^{4,21,22}	
10	<i>Dryobalanops aromatica</i> C. F. Gaertn.	
	Indonesia Name	Pohon kapur
	English name	Borneo camphor, Malayan camphor
	Name in the Qur'an	Kafur
	Family	Dipterocarpaceae
	Parts used	Resin
	References from the Qur'an	Surah 76. Al-Insan verse 5 ⁵
Chemical content	borneol and endo-borneol compounds ⁸	
Efficacy as medicine	relieve stress, heart, relieve pain, stop itching and pain in throat, boils, swollen gums, toothache ^{4,8}	
11	<i>Cucumis sativus</i> L.	
	Indonesia Name	Mentimun
	English name	Cucumber
	Name in the Qur'an	Qissa
	Family	Cucurbitaceae
	Parts used	fruit, leaves, and seeds
	References from the Qur'an	Surah 2. Al-Baqarah, verse 61 ⁵
Chemical content	Fruits contain routine; Seeds containing glucoside include cucurbitasid; The leaves contain cucurbitasides, feredoksin, alpha-apinasterol; Flowers contain free and bound sterols, as well as proteolic enzymes, ascorbic acid oxidase, and succinic dehydrogenase and malate ²³	
Efficacy as medicine	used in hemostatic treatment of, diuretic, laxative, coolant, antipyretic nutrients, bronchitis, fever, bleeding, insomnia, jaundice, strangury, constipation, burned kidney calculus, sore throat, kidney disease, diabetes, acne, cure skin irritation ^{4,23}	
12	<i>Ficus carica</i> L.	
	Indonesia Name	Tin
	English name	Fig
	Name in the Qur'an	Tin or Ara
	Family	Moraceae
	Parts used	leaves, roots, fruit, Bark, buds, seeds and sap
	References from the Qur'an	Surah 95. At-Tin, Verses 1-8 ⁵
Chemical content	contains 43- 62% fruit sugar, inverted manily sugar, flavonoids, vitamins A, B, C and D, iron, phosphorus, calcium, ficin, and enzymes ²⁴	
Efficacy as medicine	the root is a tonic, useful in leucoderma and ringworm. Sweet, antipyretic, tonic, laxative, useful in inflammation, paralysis, liver and spleen diseases, chest pain, stimulation of hair growth, expectorant, diuretics, gums have anthelmintic activity, anti-inflammatory, antipyretic activity, ulcerative, leucoderma, laxative, aphrodisiac ^{4,24}	
13	<i>Lagenaria siceraria</i> Standl.	
	Indonesia Name	Labu air
	English name	Bottle Gourd
	Family	Cucurbitaceae
	Parts used	seeds, leaves, flowers, roots, fruits, stems
	References from the Qur'an	Surah 37. Surah As-Saffat, Verses 146 ⁵
	Chemical content	Fruit: pectin, cucurbitacins, triterpenoides; Seeds: rhamnose, glucose, fructose, galactose, sucrose, rafinose, stachyose; Seed oil - saponins, fatty oils, palmitates, palmitolic, oleates, stearate & linoleic acid ^{12,25}
Efficacy as medicine	Anti-inflammatory, vomiting, laxative, anodyne, depurative, expectorant, febrifuge, diuretic, sharp, brain tonic, placental retention, jaundice, diabetes, ulcers, hemorrhoid, colitis, hypertension, skin diseases, vomiting, sedative, laxative, analgesic ^{4,22,25}	

Number	Name	
14	<i>Lens culinaris</i> Medik.	
	Indonesia Name	Kacang lentil
	English name	Lentils
	Name in the Qur'an	Fennel
	Family	Papilionaceae
	Parts used	Seeds
	References from the Qur'an	Surah Al Baqra Verses, 61 ⁵
Chemical content	seeds containing - protein, vitamin-B, tricin, luteolin, kaempferol, glikosida, 3,4,7-trihydroxyflavone, proanthocyanidines, diglycosylphindine ²⁶	
Efficacy as medicine	constipation, diuretics, anti bacterial, diarrhea, dysentery, tumors, used for for skin diseases, Hypercholesterolemia, hypertension, measles, paralysis, colds, Parkinson's, skin lightening, eye infections, and digestive diseases ^{4,26}	
15	<i>Musa paradisiaca</i> L.	
	Indonesia Name	Pisang
	English name	Banana
	Name in the Qur'an	Talh
	Family	Musaceae
	Parts used	Roots, leaves, fruit and stems.
	References from the Qur'an	Surah 56. Surah Al-Waqi'ah, Verses 27-35 ⁵
Chemical content	Bananas are a source of vitamins A, B, and C, and they also have a high content of carbohydrates and potassium. The main protein bananas are albumin and globulin, gluten, prolamines, and proteoses, cystin, lysine, histidine, arginine, serine, glycine, aspartic acid, threonine, glutamic acid, alanine, γ -aminobutyric acid, tyrosine, methionine, valine, phenylalanine, Leucine, and isoleucine. Serotonin & norepinephrine, dopamine, and unknown catecholamines ^{5,27}	
Efficacy as medicine	Helimenthiasis, leprosy, scabies, skin diseases, abrasions, burns, scabies, inflammation, bronchitis, pruritus, diabetes, loose pain, dysentery ^{4,28}	
16	<i>Ocimum basilicum</i> L.	
	Indonesia Name	Selasih, tlasih, basil, or basilikum
	English name	Sweet Basil or Basil
	Name in the Qur'an	Reihan
	Family	Lamiaceae
	Parts used	Leaves, seeds, and flowers.
	References from the Qur'an	Surah 55. Ar-Rahman, Verses 10-13 ⁵
Chemical content	monoterpenes derivatives such as camphor, limonene, thymol, citral, geraniol, linalool, methyl chavicol, eugenol, methyl eugenol, geraniol, geranial and general phenolic derivatives such as eugenol, methyl chavicol, methyl cinnamate ²⁹	
Efficacy as medicine	coolant, cough, bronchitis, cancer, seizures, diarrhea, epilepsy, gout, hiccups, impotence, nausea, sore throat, toothache ^{30,33}	
17	<i>Olea Europaea</i> L.	
	Indonesia Name	Zaitun
	English name	Olive
	Name in the Qur'an	Zeitoun
	Family	Oleaceae
	Parts used	Fruit and oil.
	References from the Qur'an	Surah 6. Al-An'am, Verses 99; Surah 16.An-Nahl, Verse 11; Surah 6. Al-An'am, Verses 141; Surah 23. Al-Mu'minun, Verses 19-20; Surah 24.An-Nur, Verse 35; Surah 80.Abasa, Verses 24-32; Surah 95. At-Tin, Verses 1-8 ⁵
Chemical content	olive fruit contains appreciable concentration, 1-3% of fresh pulp weight, of hydrophilic (phenolic acids, phenolic alcohols, flavonoids and secoiridoids) and lipophilic (cresols) phenolic compounds, pectin, organic acids, and pigments. Virgin olive oil (VOO) contains monounsaturates and other valuable minor components such as phenolics, phytosterols, tocopherols, carotenoids, chlorophyll, and squalene. ³¹	
Efficacy as medicine	Anti-oxidant, anti-hypertensive, anti-atherogenic, anti-inflammatory, anti-allergenic, anti-carcinogenic, hypoglycemic and hypocholesterolemic, anti-bacterial and anti-fungal, spasmolytic, anti-arrhythmic, antiseptic, and diuretic, Malaria, skin disease, baldness, muscle pain ^{4,31}	

Number	Name	
18	<i>Phoenix dactylifera</i> L.	
	Indonesia Name	Kurma
	English name	Date palm
	Name in the Qur'an	Nakhl
	Family	Areaceae
	Parts used	Leaves, flowers, fruit, seeds.
	References from the Qur'an	Surah 13.Ar-Ra'd, Verse 4; Surah 16. An-Nahl, Verse 11; Surah 16.An-Nahl, Ayat 67; Surah 23. Al-Mu'minin, Verses 19-20; Surah 36.Ya-Sin, Verses 34-35 ⁵
Chemical content	Vitamin A, B, D, arabinose, galactose, xylose, rhamnose, uronic acid ⁵	
Efficacy as medicine	memory disorders, fever, inflammation, paralysis, loss of consciousness, nervous disorders, detersive and intestinal problems, sore throat, colds, bronchial asthma, relieve fever, cystitis, gonorrhoea, edema, liver and stomach problems, alcohol poisoning, ulcers, diarrhea, aphrodisiac, expectorant, laxative, diuretic, appetite enhancer ^{4,32}	
19	<i>Punica granatum</i> L.	
	Indonesia Name	Delima
	English name	Pomegranate
	Name in the Qur'an	Rumman
	Family	Punicaceae
	Parts used	Leather stems, roots, flowers, fruit, seed oil
	References from the Qur'an	Surah 6. Al-An'am, Verses 99; Surah 6.Al-An'am, Verses 141; Surah 55.Ar-Rahman, Ayat 68 ⁵
Chemical content	Bark contains alkaloids; Roots: alkaloids, pseudo-palletierine, palletierine, isopalletierine, methyl palletierine. Flowers: sitosterol, tannin - punicalagin & punicalin; Fruit: Mannose, Galactose, rhamnose, arabinose, glucose, galactouronic acid ³³	
Efficacy as medicine	anthelmintic, astringent, cooling, aphrodisiac, diuretic, laxative, colitis, headache, acne, hemorrhoids, allergies, dermatitis, inflammation, heart disease, diarrhea, dysentery, cardiovascular diseases, muscle pain, hepatitis, high blood pressure, anemia, jaundice, arthritis Colic, colitis, headache, diuretic, acne, piles, allergic dermatitis, stomach cough, inflammation, heart diseases, diarrhea, dysentery, cardiovascular diseases, muscle pain, hepatitis, oral diseases, high blood pressure, anemia, jaundice, arthritis ^{4,33-35,54}	
20	<i>Salvadora persica</i> L.	
	Indonesia Name	Pohon siwak
	English name	Tooth brush tree, Mustard tree
	Name in the Qur'an	Khamt
	Family	Salvadoraceae
	Parts used	Leaf, bud, fruit, bark, seeds.
	References from the Qur'an	Surah 37. As-Saffat, Verse 16 ⁵
Chemical content	Seeds contain: alkaloids - trymethyamine, β -sitosterol, gluctropaeolin, monoclinic sulphar; Roots: urea alkaloid, sulfur, organic sulfur compounds, sitosterol, ascorbic acid, saponins, lignin glycosides; Trunk - β -sitosterol, octacosanol, salvadoside, siringin; Leaf - salvadoricine ³⁶	
Efficacy as medicine	Cough, asthma, scurvy, rheumatism, tonic for the liver, diuretic, analgesic, nasal problems, scabies, leukoderma, reduces inflammation, strengthens teeth, antidiot, carminative, lithontriptic, biliousness, snakebite, gonorrhoea, Nasal mucus, fever, emmenagogue, ascariifuge, gastric problems, laxative, analgesic, plaque, expectorant, anti-inflammatory, antisyphilitic, antiulcer activity, alexeteric, aphrodisiac, emollient, laxative ^{4,37}	
21	<i>Tamarix aphylla</i> (L.) H.Karst.	
	Indonesia Name	Tamariska
	English name	Athel tamarisk
	Name in the Qur'an	Athl
	Family	Tamaricaceae
	Parts used	Leather stems, roots, leaves and twigs.
	References from the Qur'an	Surah 34. Saba, Verse 16 ⁵
Chemical content	flavonoids, cardiac glycosides, steroids, terpenoids, tannins ³⁶	
Efficacy as medicine	treat diarrhea and dysentery, accelerate the healing process, and as a laxative, antimicrobial, so good to clean the wound. The extract has been found to have a positive effect on liver function. It has been used externally to treat rheumatic swelling, tuberculosis, leprosy, smallpox, swollen spleen, astringent, eczema, capitis, hepatitis, skin diseases, syphilis, scaly skin, tetanus ^{4,38,39}	

Number	Name	
22	<i>Tamarix mannifera</i> (Ehrenb.) Bunge	
	Indonesia Name	Tamariska
	English name	Manna
	Name in the Qur'an	Mann
	Family	Tamaricaceae
	Parts used	Plant extract
	References from the Qur'an	Surah 34. Saba, Verse 16 ⁵
	Chemical content	The proximate analysis of the sap contains more than 90% carbohydrates, 4% protein and 2% ash ⁴⁰
	Efficacy as medicine	Purgative, Health tonic (nutritional supplements) ⁴
	23	<i>Trifolium repens</i> L.
Indonesia Name		clover putih
English name		Kajb
Name in the Qur'an		-
Family		Fabaceae
Parts used		flowers, leaves, roots, whole plants
References from the Qur'an		Surah 80. Abasa, Verses 24-32 ⁵
Chemical content		contains phosphorus, magnesium, and sodium, rich in potassium, calcium and manganese. High total protein content ⁴¹
Efficacy as medicine		Antiseptics, tranquilizers, analgesic medications for rheumatic disorders, deworming drugs, anti-diarrhea medications, sore throat treatment, fever, pneumonia, meningitis, fever, cough and runny nose, boils, blisters ⁵¹
24		<i>Vitis vinifera</i> L.
	Indonesia Name	Anggur
	English name	Grape
	Name in the Qur'an	Inab
	Family	Vitaceae
	Parts used	Fruit, seeds, leaves
	References from the Qur'an	Surah 2. Al-Baqarah, verse 266; Surah 6. Al-An'am, Verses 99; Surah 13. Ar-Ra'd, Verse 4; Surah 16. An-Nahl, Verse 11; Surah 16. An-Nahl, Ayat 67; Surah 17. Al-Israa, Verses 90-91; Surah 18. Al-Kahf, Verse 32; Surah 23. Al-Mu'minin, Verses 19-20; Surah 36. Ya-Sin, Verses 34-35; Surah 80. Abasa, Verses 24-32; Surah 78. An-Nabaa, Verses 31-36 ⁵
	Chemical content	Fruit contains: Gum, tannin, grape-sugar, citrate, racemate, malic acid, potassium & sodium chloride, potassium sulfate, lime tartrate, magnesium, alum and iron ⁴²
	Efficacy as medicine	Anemia, asthma, blood pressure, cough, fever, bronchitis, flatulence, jaundice, kidney disease, leprosy, liver disease, skin diseases and vertigo, syphilis, colds, bronchitis, diarrhea ^{4,43}
	25	<i>Zingiber officinale</i> Roscoe
Indonesia Name		Jahe
English name		Ginger
Name in the Qur'an		Zanjabeal
Family		Zingiberaceae
Parts used		Rhizomes
References from the Qur'an		Surah 76. Ad-Dahr, Verses 11-18 ⁵
Chemical content		Carotenoids, flavonoids, cinnamic acid, benzoate acid, folic acid, ascorbic acid, tocopherol, tocotrienol, beta-carotene, ascorbic acid, tocopherol alpha, terpenoids, alkaloids, polyphenols, flavones glycosides, routine ^{5,44}
Efficacy as medicine		Nausea, cold-induced illness, colic, vomiting, asthma, cough, inflammation, dyspepsia, loss of appetite, runny nose, fever, allergic rhinitis, sinusitis, headache, backache or any type of muscular disorder, toothache, Gastritis, abdominal pain nausea, respiratory disorders, heart health and rheumatic disorders. Z. officinale also has immunomodulatory properties and is reported to inhibit various inflammatory mediators such as prostaglandin and pro inflammatory cytokines. Ginger has properties as anti-inflammatory ^{4,45}
26		<i>Ziziphus mauritiana</i> Lam.
	Indonesia Name	Bidara
	English name	Indian jujube
	Name in the Qur'an	Sidar
	Family	Rhamnaceae
	Parts used	Fruit, seeds, leaves, twigs, bark, roots and flowers
	References from the Qur'an	Surah 34. Saba, Verse 16; Surah 53. An-Najm, Verses 12-15; Surah 53. An-Najm, Verses 16-18 ⁵
	Chemical content	Alkaloids, phenols, flavonoids, quercetin, routine and terpenoids ⁴⁶
	Efficacy as medicine	Nausea, vomiting, abdominal pain, diuretic, laxative, emollient, expectorant, hair fertilizer, anodyne, anticancer, chest, coolant, sedative, inflammation, wound healing, skin ulcers, jaundice, abdominal pain, fever ^{4,47}

Number	Name	
27	<i>Ziziphus spina-christi</i> Georgi	
	Indonesia Name	Bidara
	English name	Lote-tree
	Name in the Qur'an	Sidar
	Family	Rhamnaceae
	Parts used	Pulp, leaves, roots and root bark
	References from the Qur'an	Surah 34. Saba, Verse 16; Surah 53. An-Najm, Verses 12-15; Surah 53. An-Najm, Verses 16-18 ⁵
	Chemical content	alkaloids, phenols, flavonoids, quercetin, routine and terpenoids ⁴⁸
	Efficacy as medicine	digestive problems, open wounds, Antiseptics, Liver complaints, Obesity, Diabetes, Skin infections, Antibacterial, Fever, Pharyngitis, Bronchitis, Anemia, Diarrhea, Insomnia and Antinociceptive ^{4,49}

CONCLUSION

Traditional knowledge is passed down from generation to generation, as well as medicine in Islam has a long history. In this paper, attempts have been made to compile up-to-date knowledge of 27 species medicinal plants mentioned in the Qur'an, which can be used as a quick reference guide for further studies in ethnobotany. At the same time also through this paper can encourage researchers who conduct ethno pharmacology research to explore the new pharmacological properties of the plants.

ACKNOWLEDGMENTS

This research was partially supported by Overseas Seminar Assistance Program Directorate General of Research and Development Reinforcement, Ministry of Research, Technology and Higher Education (Kemenristekdikti), and I would like to take this opportunity to thank for the permanent support of Dr. Bulkani, M.Pd, rector of Universitas Muhammadiyah Palangkaraya, Central Kalimantan, Indonesia.

CONFLICTS OF INTEREST

None.

REFERENCES

- Yari KH, Kazemi E, Yarani R, Tajehmiri A. Islamic bioethics for fetus abortion in Iran. *American Journal of Scientific Research*. 2011;18(2):118-21.
- The treatment of the prophet. <http://kustoro.wordpress.com/pengobatan-nabi>. February 27, 2015.
- Al-Jauziyah IQ. Prophetic medicine practice: Healing under the guidance of revelation. Jakarta, Hikam Pustaka, 2008.
- Hossain SM, Urbi Z, Evamoni ZF, Zohora TF, Rahman HK. A secondary research on medicinal plants mentioned in the Holy Qur'an. *Journal of Medicinal Plants*. 2016;15(59):81-97.
- Sheikh KD, Dixit KA. Plants In The Holy Quran: A Look. *World J Pharm Pharm Sci*. 2015;4(8):715-38.
- Kabbashi AS, Ismail AM, Koko SW, Osman EE, Dahab MM, Garbi IM, et al. Activity of acacia seyal (Dell) bark methanolic extract against *Biomphalaria pfeifferi* snails. *Int Biol Biomed J*. 2016;2(2):73-9.
- Orwa C, A Mutua, Kindt R, Jamnadass R, Anthony S. Agroforestry database: a tree reference and selection guide version 4.0 (<http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp>). 24 February 2018.
- Youn YN, Lim E, Lee N, Kim YS, Koo MS, Choi SY. Screening of Korean medicinal plants for possible osteoclastogenesis effects *in vitro*. *Genes Nutr*. 2008;2(4):375-80.
- Kahrizi D, Molsaghi M, Faramarzi A, Yari K, Kazemi E, Farhadzadeh AM. Medicinal plants in holy Quran. *American Journal of Scientific Research*. 2012;42:62-71.
- Samejo MQ, Memon S, Bhangar MI, Khan KM. Chemical composition of essential oils from *Alhagimaaurorum*. *Chem Nat Compd*. 2012;48(5):898-900.
- Kumar KPS, Bhowmik D, Chiranjib B, Tiwari P. Allium cepa: A traditional medicinal herb and its health benefits. *J Chem Pharm Res*. 2010;2(1):283-91.
- Shrestha H. A Plant monograph of Onion (*Allium cepa*). Nepal: The School of Pharmaceutical and Biomedical Sciences, Pokhara University, 2007.
- Choudhary R. Beneficial effect of *Allium sativum* dan *Allium tuberosum* on experimental hyperlipidemia and atherosclerosis. *Pakistan Journal of Physiology*. 2008;4(2):7-9.
- Londhe VP, Gavasane AT, Nipate SS, Bandawane DD, Chaudhari PD. Role of garlic (*Allium sativum*) in various diseases: An overview. *J Pharm Res Opin*. 2011;1(4):129-34.
- Kiasalaria Z, Khalili M, Roghani M, Article O, Sadeghian A. Antiepileptic and antioxidant effect of *Brassica nigra* on pentylenetetrazol-induced kindling in mice. *Iran J Pharm Res*. 2012;11(4):1209-17.
- Anand P, Murali K, Tandon V, Chandra R, Murthy P. Preliminary studies on anti hyperglycemic effect of aqueous extract of *Brassica nigra* (L.) Koch in streptozotocin-induced diabetic rats. *Indian J Exp Biol*. 2007;45(8):696-701.
- Loizzo M, Saab A, Statti G, Menichini F. Composition and α -amylase inhibitory effect of essential oils from *Cedrus libani*. *Fitoterapia*. 2008;78(4):323-6.
- Frizzo CD, Santos AC, Paroul N, Serafini LA, Dellacassa E, Lorenzo D, Moyna P. Essential oils of camphor tree (*Cinnamomum camphora* nees & eberm) cultivated in Southern Brazil. *Braz Arch Biol Technol*. 2000;43(3):313-6.
- Salman AS, Farghaly AA, Donya SM and Shata F. Protective effect of *Cinnamomum Camphora* leaves extract against atrazine induced genotoxicity and biochemical effecton mice. *Journal of American Science*. 2012;8(1):190-6.
- Babu PD, Subhasree R. Antimicrobial activities of *Lawsonia inermis*-a review. *Academic Journal Plant Sciences*. 2009;2(4):231-2.
- Chaudhary G, Goyal S, Poonia P. *Lawsonia inermis* linnaeus: A phytopharmacological review. *Int J Pharm Sci Drug Res*. 2010;2(2):91-8.
- Kumar A, Partap S, Sharma NK, Jha K. Phytochemical, ethnobotanical and pharmacological profile of *Lagenaria siceraria*: A review. *J Pharmacogn Phytochem*. 2012;1(3):1-9.
- Rajvanshi A, Sharma S, Khokra SL, Sahu RK, Jangde R. Formulation and evaluation of *Cyperusrotundus* and *Cucumisativus* based herbal face cream. *Pharmacologyonline*. 2011;2(1):1238-44.
- Joseph B dan Raj SJ. Pharmacognostic and phytochemical properties of *Ficus carica* Linn-An overview. *Int J PharmTech Res*. 2011;3(1):8-12.
- Tyagi N, Sharma GN, Hooda V. Phytochemical and pharmacological profile of *Lagenaria siceraria*: an overview. *Int Res J Pharm*. 2012;3(3):1-4.
- Zia-UI-Haq M, Ahmad S, Aslamshad M, Iqbal S, Qayum M, Ahmad A, et al. Compositional studies of lentil (*Lens culinaris* Medik.) cultivars commonly grown in Pakistan. *Pakistan Journal of Botany*. 2011;43(3):1563-7.
- Imam MZ, Akter S. *Musa paradisiaca* L. And *Musa sapientum* L. A phytochemical and pharmacological review. *J Appl Pharm Sci*. 2011;1(05):14-20.
- Mohiuddin A, Saha MK, Hossian MS and Ferdoushi A. Usefulness of banana (*Musa paradisiaca*) wastes in manufacturing of bioproducts: A review. *The Agriculturists*. 2014;12(1):148-58.
- Nassar MA, El-Segai MU, Mohamed SNA. Botanical Studies on *Ocimum basilicum* L. (Lamiaceae). *Research Journal of Agriculture and Biological Sciences*. 2013;9(5):150-63.
- Bunrathep S, Palanuvej C, Runangrunsi. Chemical composition and anti-oxidative activities of essential oils from four *Ocimum* species Endemic to Thailand. *J Health Res*. 2007;3(1):201-6.
- Ghanbari R, Anwar F, Alkharfy KM, Gilani AH, Saari N. Valuable nutrients and functional bioactives in different parts of olive (*Olea europaea*L.)-A review. *Int J Mol Sci*. 2012;13(3):3231-40.
- Vyawahare N, Pujari R, Khsirsagar A, Ingawale D, Patil M, Kagathara V. *Phoenix dactylifera*: An update of its indigenous uses, phytochemistry and pharmacology. *The Internet Journal of Pharmacology*. 2009;7(1):164.

33. Shah M, Shah S, Patel M. Review on: The Aspects of *Punica granatum*. Journal of Pharmaceutical Science and Bioscientific Research. 2011;1(3):154-9.
34. Rahimi HR, Arastoo M, Ostad SN. A comprehensive review of *Punicagranatum* (Pomegranate) properties in toxicological, pharmacological, cellular and molecular biology researches. Iran J Pharm Res. 2012;11(2):385-400.
35. Bahtiar A, Arifin S, Razalifha A, Qomariah N, Wuyung P, Arsianti A. Polar fraction of *Punica granatum* L. Peel extract increased osteoblast number on ovariectomized rat bone. Int J Herbal Med. 2014;2:65-70.
36. Marwat SK, Khan MA, Rehman FU, Ahmed M, Zafar M, Sultana S. *Salvadora persica*, *Tamarix aphylla* and *Zizyphus mauritiana*-three woody plant species mentioned in Holy Quran and Al-hadith and their ethnobotanical uses in north western part (D.I. Khan) of Pakistan. Pak J Nutr. 2009;5(8):542-7.
37. Halawany HS. A review on miswak (*Salvadora persica*) and its effect on various aspects of oral health. The Saudi Dental Journal. 2012;24(2):63-9.
38. Mohammedi Z, Atik F. Impact of solvent extraction type on total polyphenols content and biological activity from *Tamarix Aphylla* (L.) Karst. Int J Pharm Biol Sci. 2011;2(1):609-15.
39. Yusufoglu HS, Alqasoumi SI. Antiinflammatory and wound healing activities of herbal gel containing an antioxidant *Tamarix aphylla* leaf extracts. Int J Pharmacol. 2011;7(8):829-35.
40. Maleki M, Djazayeri. Chemical characteristics and composition of "Gaz" gum from *Tamarix manifera*. Starch-Stärke. 1972;24(9):296-9.
41. Alberski J, Olszewska M. Chemical composition of *Trifoliumrepens* L. from permanent grasslands in relation to some chemical soil properties. Acta Agrophysica. 2015;22(4):359-66.
42. Orhan DD, Orhan N, Özçelik B, Ergun F. Biological activities of *Vitisvinifera* L. leaves. Turk J Biol. 2009;33(1):341-8.
43. Nassiri-Asl M, Hosseinzadeh H. Review of the pharmacological effects of *Vitisvinifera* (Grape) and its bioactive compounds. Phytother Res. 2009;23(9):1197-1204.
44. Banerjee S, Mullick H, Banerjee J, Ghosh A. *Zingiber officinale*: A natural gold. International Journal of Pharmacy and Biology Science. 2011;2(1):283-94.
45. Kumar G, Karthik L, Rao KVB. A review on pharmacological and phytochemical properties of *Zingiber officinale* Roscoe (Zingiberaceae). J Pharm Res. 2011;4(9):2963-6.
46. Talukdar M, Rahman S, Akhtaruzzaman M, Samad M. A comparative study on the nutritional quality of 5 (Five) varieties of Bangladeshi jujubes (*Ziziphus mauritiana*). American Journal of Nutrition and Food Science. 2014;1(2):32-6.
47. Goyal M, Nagori BP, Sasmal D. Review on ethnomedicinal uses, pharmacological activity and phytochemical constituents of *Ziziphus mauritiana* (Z. Jujube Lam., non Mill). Spatula DD. 2012;2(2):107-16.
48. Kusriani RH, Nawawi A, Machter E. Determination of Total Phenolate Compound and Antioxidant Activity of Leaf Extract, Fruit and Bidara Seeds (*Ziziphus spina-christi* L.). Proceeding. 2015.
49. Hadizadeh I, Peivastegan B, Kolahi M. Antifungal activity of nettle (*Urticadioica* L.), colocynth (*Citrulluscolocynthis* L. Schrad), oleander (*Nerium oleander* L.) and konar (*Ziziphusspina-christi* L.) extracts on plants pathogenic fungi. Pak J Biol Sci. 2009;12(1):58-63.
50. Atta AH, Mouneir SM. Antidiarrhoeal activity of some Egyptian medicinal plant extracts. J Ethnopharmacol. 2004;92(2):303-9.
51. Kolodziejczyk-Czepas J. *Trifolium* species-derived substances and extracts-Biological activity and prospects for medicinal applications. J Ethnopharmacol. 2012;143(1):14-23.
52. Kumar KPS, Bhowmik D, Chiranjib B, Tiwari P. Allium cepa: A traditional medicinal herb and its health benefits. J Chem Pharm Res. 2010;2(1):283-91.
53. Balakrishnan Purushothaman, Ramalingam Prasanna Srinivasan, Purushothaman Suganthi, Balu Ranganathan, Julius Gimbun, Kumaran Shanmugam. A comprehensive Review on *Ocimum basilicum*. J Natural Remedies. 2018;18(3):71-85.
54. Rahmani AH, Alsahli MA, Almatroodi SA. Active constituents of pomegranates (*Punica granatum*) as potential candidates in the management of health through modulation of biological activities. Pharmacogn J. 2017;9(5):689-95.

GRAPHICAL ABSTRACT



ABOUT AUTHORS



Nurul Qamariah was born in Palangka Raya, Indonesia. Nurul was graduated from Department of Pharmacy, Indonesia University (UI, 2014). In 2014 she joined as a lecturer in Pharmacy Department, Muhammadiyah University of Palangkaraya. She teaches Pharmacognosy, Phytochemistry, Organic Chemistry, Basic Chemistry, and Formulation of Traditional Medicine Preparations. During the past four years, Nurul has conducted several scientific studies, as well as the publication of scientific works. Her research is focused on the development of traditional medicine from plants.

Cite this article: Qamariah N. Ethnobotanical Study of Qur'an Plants. *Pharmacog J.* 2019;11(5):919-28.