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The Importance of Plants for Society with reference to Islam and Quran

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Abstract:

Islam is the most complete religion, which presents the elasticity to respond new technologies and a complete way for living. In Islam, ethical teachings of biomedical ethics are linked with Holy Quran and Prophet Muhammad (PBUH). Almost 22 identifiable plants belong to seventeen plant families are cited in the Holy Quran including *Ficus carica*, *Olea europaea*, *Phoenix dactylifera*, *Vitis vinifera*, *Panica granatum*, *Ocimum basilicum*, *Dryobalanops camphora*, *Zingiber officinale*, *Brassica nigra*, *Salvadora persica*, *Tamarix*, *Zizyphus spina-christi*, *Citrulus colocynthis*, *Cucurbita pepo*, *Cucumis sativus*, *Allium sativum*, *A. cepa*, *lens esculents*, *Musa sapientum*, *Hordeum vulgare*, *Triticum vulgare* and *Trifolium*. The present study describes the wide range of plants mentioned distinctly in the Holy Quran to denote holy plants such as fig, olive, date palm and pomegranates; or aroma plants such as zinger, basil and chamfer; or popular nutritious plants like onion, garlic and lentils; astringent plants as colocynth or Pasteur plants like clover. On the other hand, key words like plants, seeds, grains, ornamentals, gardens, trees, fruits and herbs are also mentioned very often in the Quran to denote a plant, a plant part, type and/or habit of a plant or places where plants are normally grow. A comprehensive list of surahs and ayahs where a distinct plant or a keyword indicates plants are included. The taxonomic position and common names of those plants are included. Typical biological issues such as biodiversity, seed germination, photosynthesis and diverse uses of plants are interpreted from various surahs of the Quran.

Key words: Biodiversity. germination. higher plants. holy Quran. uses of plants

INTRODUCTION

Although the Holy Quran is a religious book more than 1400 years old with a total of 6600 verses dealing with many aspects of regular life, about 1000 of those verses are of a scientific nature. There are more than 900 verses in the Holy Quran that can be related to relatively new scientific discoveries, which miraculously are said not to contradict the facts as we currently understand them (Bucaille, 198°).

The Holy Quran reviews diverse scientific topics such as astronomy, geology, embryology, genetics, biology, archaeology, etc. The Quran reveals the secrets of critical scientific issues such as the big bang model of the origin of the universe, the theory of the expansion of the universe, gaseous state of the universe, celestial bodies tied to orbits, the existence of sun's orbit, the rounded shape of the earth, the reduction of matter from the earth's edges, the fact that the earth and the moon are moving each in its own path, the fact that the light from the moon is a mere reflection of the light from the sun, the critical positioning of the stars, the fact that the mountains are considered as a wedge for the Earth, human exploration of space, the protection of the earth by the atmosphere from bombardment by meteorites, the ending of sensation at the palm of skin at which the nerves end, various aspects of embryology (including the development of babies in a mother's womb and that the amnion consists of three layers), gender determination, existence of pairs in all creations (Bucaille, 198°).

The Holy Quran is the word of God as transmitted by the Angel Gabrielle, in the Arabic language through Prophet Mohammed. The Holy Quran is regarded as untranslatable since the Arabic language is inseparable from its message. The Quran is actually available in many languages, but these versions are regarded as interpretations rather than translations.

The Quran is divided into 114 surahs, or chapters and the surahs are conventionally assigned to two broad categories: those revealed at Mecca or Medina. All the surahs are divided into ayahs or verses. The surahs themselves vary in length, ranging from the longest Surah 2, with 282 verses, to the three shortest (Surahs 103, 108 and 110) each of which has only three verses. With some exceptions, the surahs are arranged in the Quran in

descending order of length, with the longest at the beginning and the shortest at the end. The Quran as a whole is divided into thirty parts, which in turn are divided into short divisions of nearly equal length, to facilitate study and memorization

The Quran reveals the secrets of critical scientific issues such as the big bang model of the origin of the universe, the theory of the expansion of the universe, gaseous state of the universe, celestial bodies tied to orbits, the existence of sun's orbit, the rounded shape of the earth, the reduction of matter from the earth's edges, the fact that the earth and the moon are moving each in its own path, the fact that the light from the moon is a mere reflection of the light from the sun, the critical positioning of the stars, the fact that the mountains are considered as a wedge for the Earth, human exploration of space, the protection of the earth by the atmosphere from bombardment by meteorites, various aspects of embryology (including the development of babies in a mother's womb and that the amnion consists of three layers), gender determination, existence of pairs in all creations (Buacaille, 1987). The traditions, life and actions of the Prophet Mohammed as well as the historical context for many of the surahs are the basis for what is called the sunnah, or practice of the Prophet. The Hadith or Sunna, which are the recorded and authenticated sayings and traditions of the Prophet Mohammed is regarded as a secondary source of Muslims inspiration. Very early in the Islamic era, the Hadith literature had accumulated a number of sayings and traditions of the Prophet under a collection called the Prophetic Medicine (El-Gozeiha, 1990). Higher plants are mentioned very often in both Prophetic Medicine and The Hadith due to their precious nature as natural remedies for the management of simple ailments like headache, fever, sore throat, etc. and for improving diets and general health (El-Batanony, 1986). Particular plants cited in the Holy Quran were probably mentioned to indicate holy plants such as fig, olive and date palm; or aroma plants such as zinger, basil and chamfer; or to denote popular nutritious plants such as onion, garlic and lentils; also to describe fine particles as the seeds of black mustard or astringent plants such as colocynth.

We related various plants mentioned in the Holy Quran to their taxonomic orders, families and genera were done according to standard text books in the field (Dejey, 19° 5; Tackholm, 19° 4; Boulos, 1983). Several hundred medicinal plant species from the Arabian area (Khatibi *et al.*, 1989; Helmy *et*

al., 1990; Githinji and Kokwaro, 1993; Khafagi and Dewedar, 2000) have been identified and their usage documented in the ethnobotanical literature (Ayensu, 19° 8; Bailey and Damn, 1981 ; Boulos, 1983; Danin, 1983; Rizk, 1986; Mitscher *et al.*, 198°; Deans and Sv oboda, 1990; Khafagi, 1988, 1992, 1998). Those ethnobotanical data were used as a guide in understanding the medicinal and other uses of distinct plants cited in the Holy Quran.

About twenty-two plants belong to seventeen families were mentioned in the Quran as distinct plants, which can be related to a specific genera and belong to a definite family (Table 1). Higher plants revealed including *Ficus carica*, *Olea euro poea*, *Phoenix dactyltfera*, *Vitis vintfera*, *Panica granatum*, *Ocimum basilicum*, *Dryobalanops camphora*, *Zingiber officinale*, *Brassica nigra*, *Salvadora persica*, *Tamarix*, *Zizyphus*

spina- christi, *Citrus colocynthis*, *Cucurb ita pepo*, *Cucumis sativus*, *Allium sativum*, *A. ce pa*, *lens esculents*, *Musa sa pientum*, *Hordeum vulgare*, *Triticum vulgare* and *Trifolium*. On the other hand, key words describing plants were also mentioned very often. For example, words like plants, seeds, grains, cultivars, ornamentals, gardens, trees, fruits, herbs, etc. were mentioned to denote a plant and/or a plant part, a plant type or to indicate places where plants are normally grow.

Frequently, plants mentioned in the Quran as illustration, inspiration or as part of a definite story. The conceivable meaning of ayahs deals with botanical issues will be discussed in the following section. Allah swears by the fig and the olive in Surah the Fig. 1 to indicate Palestine, the place where they grow together and where Jesus was born. Olive tree was mentioned in surah The light (35) to describe Allah as a light produced from an olive-tree, which yield high quality clear and pure oil because it is grown in the desert unsheltered from the sun. The sun shining on it all the day from the dawn until the sunset. Olives was mentioned again with the palm-tree, grapes and pomegranates as holy plants and to indicate species diversity (The Livestock 99 and 141). Palms and vines were mentioned together in more than one site n the Quran including: The Cow 266, The Livestock 99 and 141 etc. In surah the Cow 266. Both palms and vines were cited in the Cow 266 to reflect rich fruits, which make a garden appear like paradise. The advice from the ayah is to do good things continuously. Various types, shapes, taste and color of pomegranate, palms, vines and olive was mentioned in the Livestock 99 and

141 to report species and genetic diversity. In the Livestock (99) a combination of several plants monocots and dicots, large trees and short reachable ones looks the same morphologically but vary genetically. The command from the ayah is to look at the mature fruits wisely, as they are signs for believing in God. Ayah 141 from the same surah also addresses the issue of biodiversity through the same plants growing wild and cultivated as trees, shrubs and herbs. Here the instruction was to eat the ripe fruits and pay the due of it in the day of harvesting without being excessive. Basil was mentioned in the Quran to denote any fragrance plant with green leaves (The Mercy-giving 11-1 2). Ayah 11 contrasts various sorts of fruits with palms having sheathed clusters. Ayah 12 addressed the difference between husks and fragrant green leaves of grains. Ayah 5 of the Human characterizes aroma drink supplied to the righteous in paradise with a fresh cool sensation taste of camphor followed by a pungent warming drink with the taste of ginger (The Human 1°). The two sequential tastes are needed for fitness and delight. In the Prophets 4° Allah reports that every soul will be accounted with justice. Even if there is a charge as light as the weight of a grain of mustard, it will be counted too. The mustard seed here is used as a clear example of fine grains. Ayahs 16-1 of Saba tells part of the story of the kings of Saba. It is the story of a man who has ten children. God sends them the best weather and they built a dam, where it initiated two gardens on its sides. The gardens were impressive and full of various sorts of edible fruits. They were not thankful and believed in the Sun instead of God. He turned both gardens to yield slightly productive trees such as tooth-brush tree, tamarisk and a few lotto-trees. The Arrangers 62-66 contrast the refreshing fruits found in paradise with the Zaqqum tree (Colocynth). It is made as a trial for the unjust. It grown as the heads of the serpents and shall be the only food in the hell. The Arrangers 146 indicate that God grow a tree of pumpkin in the area, where Younes was thrown out from the abdomen of the whales. The interpretation of the ayah is that pumpkin is a fast-growing plant and nutritionally rich. It is an excellent plant for Prophet Younes, who spend long time with fear, hunger and thirst inside the huge sea mammal. Pumpkin is a creeping plant and not a tree. The description may reflect supported growth or giant appearance. Some plants are mentioned in ayah 61 from The Cow. The children of Israeli were used to eat rich diet composed of edible birds and mushroom-like food. They

asked Musa to pray God to grow for them herbs including cucumber, garlic, onion and lentils. Allah found that they exchange good food with cheap one, which can be found in any city.

MATERIALS AND METHODS

The present research work was performed by reviewing the Holy Quran. Comprehensive and detailed information about plants were collected from the Ayat and Suras of Holy Quran. Plants species were arranged in systematic order of botanical names in alphabetic order followed by Arabic name, English name, Hindi name, Family, Distribution, Part used, Chemical constituents, Medicinal properties and references cited from Holy Quran.

RESULTS

Below mentioned the plants description with their chemical constituents and medicinal uses of plants listed in Quran

Alhagi Maurorum

English name-Caspian manna

Quranic References

Surah2. Al-Baqara, Ayah 57

And We shaded you with clouds and sent down on you *Al- Manna* and the quails, (saying): “Eat of the good lawful things We have provided for you,” (but they rebelled). And they did not wrong Us but they wronged themselves.

Surah 7. Al-A'raf, Ayah 160

And We divided them into twelve tribes (as distinct) when his people asked him for water (saying): “Strike the stone with your stick”, and there gushed forth out of it twelve springs, each group knew its own place for whater. We shaded them with the clouds and sent down upon them *Al-Manna* and the quails (saying): “Eat of the good things with which provided you.” They harmed Us not but they used to harm themselves

Surah 20.Ta-ha, Ayah 80.

O children of Israel! We delivered you from your enemy, and We made a covenant with you on the right side of the Mount, and We sent down to you *Al-Manna* and quails.

Allium cepa

English name - Onion

Quranic References**Surah 2.Al-Baqara, Ayah 61.**

And (remember) when you said, “O Musa (Moses)! We cannot endure one kind of food. So invoke your lord for us to bring forth for us of what the earth grows, its herbs, its cucumbers. Its fum (wheat or garlic), its lentils and its onion.” He said, "Would you exchange that which is better for that which is lower? Go you down to any town and you shall find what you want!" And they were covered with humiliation and misery, and they drew on themselves the Wrath of Allah That was because they used to disbelieve the Ayat (proofs, evidences, verses, lessons, signs, revelations etc.) of Allah and killed the Prophets wrongfully. That was because they disobeyed and used to transgress the bounds (in their disobedience to Allah, i.e. commit crimes and sins).

3.Allium sativum

English name -Garlic

Quranic References**Surah 2.Al-Baqara, Ayah 61.**

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Brassica nigra

English name - Black mustard

Quranic References

Surah 21. Al-Anbiyaa, Ayah 47

And We shall set up balances of justice on the Day of Resurrection, then none will be dealt with unjustly in anything. And if there be the weight of a mustard seed, We will bring it. And Sufficient are We to take account.

Surah 31. Luqman, Ayah 16.

“O my son! If it be (anything) equal to the weight of a grain of mustard seed, and though it be in a rock, or in the heavens or in the earth, Allah will bring it forth. Verily, Allah is Subtle (in bringing out that grain), Well-Aware (of its place).

Cinnamomum comphora

English name- Camphor tree

References from Quran**Surah 76. Ad-Dahr, Ayah 5-6.**

5. Verily, the *Abrar* (the pious and righteous), shall drink of a cup (of wine) mixed with (water from a spring in paradise called) *Kafur*.

6. A spring wherefrom the salves of Allah will drink, causing it to gush forth abundantly.

Cucumis sativus

English name - Cucumber

Quranic References**Surah 2. Al-Baqara, Ayah 61.**

And (remember) when you said, “O Musa (Moses)! We cannot endure one kind of food. So invoke your lord for us to bring forth for us of what the earth grows, its herbs, its cucumbers. Its fum (wheat or garlic), its lentils and its onion.” He said, "Would you exchange that which is better for that which is lower? Go you down to any town and you shall find what you want!" And they were covered with humiliation and misery, and they drew on themselves the Wrath of Allah That was because they used to disbelieve the Ayat (proofs, evidences, verses, lessons, signs, revelations etc.) of Allah and killed the Prophets wrongfully. That

was because they disobeyed and used to transgress the bounds (in their disobedience to Allah, i.e. commit crimes and sins).

Quranic Reference

Surah 37. As-Saaffat, Ayah 146.

146. And We caused a plant of gourd to grove over him.

Lens culinaris

English name - Lentil

Quranic References

Al Baqra Aayat, 61

And (remember) when you said, "O Musa (Moses)! We cannot endure one kind of food. So invoke your lord for us to bring forth for us of what the earth grows, its herbs, its cucumbers. Its fum (wheat or garlic), its lentils and its onion." He said, "Would you exchange that which is better for that which is lower? Go you down to any town and you shall find what you want!" And they were covered with humiliation and misery, and they drew on themselves the

Ficus carica

English name - Fig

Quranic References

Surah 95. At-Tin, Ayah 1-8.

1. By the fig, and the olive.
2. By Mount Sinai.
3. By this city of security (Makkah).
4. Verily, We created man in the best stature (mould).
5. Then We reduced him to the lowest of the low, shall have a reward without end (Paradise).
6. Save those who believe (in Islamic Monotheism) and do righteous deeds. Then they
7. Then what (or who) causes you (O disbelievers) to deny the Recompense (i.e. the Day of Resurrection)?
8. Is not Allah the Best Of judges?

Lagenaria siceraria

English name – Bitter bottle gourd

Wrath of Allah That was because they used to disbelieve the Ayat (proofs, evidences, verses, lessons, signs, revelations etc.) of Allah and killed the Prophets wrongfully. That was because they disobeyed and used to transgress the bounds (in their disobedience to Allah, i.e. commit crimes and sins).

Musa paradisiaca

English name - Banana

Quranic References

Surah 56. Al-Waqi'a, Ayah 27-35

27. And those on the right Hand-how (fortunate) will be those on the right Hand?
28. (They will be) among thorn less lote-trees,
29. And among Talh (banana-trees) with fruits piled one above another,
30. And in shade long-extended,
31. And by water flowing constantly,
32. And fruit in plenty,
33. Whose supply is not cut off (by change of season), nor are they out of reach,
34. And on couches or thrones, raised high.
35. Verily, We have created them (maidens) of special creation.

Ocimum basillicum L.

English name - Sweet Basil or Basil

QuranicReferences

Surah 55. Ar-Rahman, Ayah 10-13

10. And the earth: He has put down (laid) for the creatures.

11. Therein are fruits and date-palms producing sheathed fruit-stalks (enclosing dates).
12. And also corn, with (its) leaves and stalks for fodder, and sweet-scented plants.
13. Then which of the Blessing of your Lord will you both (jinn and men) deny.

Olea europea

English name- Olive

Quranic References

Surah 6. Al-An'am, Ayah 99

It is He Who sends down water (rain) from the sky, and with it We bring Forth vegetation of all kinds, and out of it We bring forth green stalks, from which We bring forth thick clustered grain. And out of the date-palm and its spate come forth clusters of dates hanging low and near, and gardens of grapes, olives and pomegranates each similar (in kind) yet different (in variety and taste). Look at their fruits when they begin to bear and the ripeness there of Verily ! in things there are signs for people who believe.

Surah 16. An-Nahl, Ayah 11

With it He causes to grow for you the crops, the olives, the date-palms, the grapes, and every kind of fruit. Verily! In this is indeed an evident proof and a manifest sign for people who give thought.

Surah 6. Al-An'am, Ayah 141;

And it is He Who produces gardens trellised and untrellised, and date-palms, and crops of different shapes and taste (their fruits and their seeds) and olives, and pomegranates, similar (in kind) and different (in taste). Eat of their fruit when they ripen, but pay the due thereof (its Zakat, according to Allah's Orders 1/10th or 1/20th) on the day of its harvest, and waste not by extravagance Verily, He likes not Al-Musrifun (those who waste by extravagance),

Surah 23. Al-Muminun, Ayah 20;

And a tree (olive) that springs forth from Mount Sinai, that grows (produces) oil, and (it is a)relish for the eaters.

Surah 24. An-Nur, Ayah 35;

Allah is the Light of the heavens and the earth. The parable of His Light is as (if there were) a niche and within it a lamp: the lamp is in a glass, the glass as it were a brilliant star, lit from a blessed tree, an olive, neither of the east (i.e. neither it gets sun-rays only in the morning) nor of the west (i.e. nor it gets sun-rays only in the afternoon, but it is exposed to the sun all day long). Whose oil would almost glow forth (of itself), though no fire touched it. Light upon Light! Allah guides to His Light whom He wills And Allah sets forth parables for mankind, and Allah is All-Knower of everything.

Phoenix dactylifera

English name- Date palm

Quranic References

Surah 13.Ar-Ra'd, Ayah 4

And in the earth are neighboring tracts, and gardens of vines, and green crops (fields), and date-palms, growing into two or three from a single stem root, or otherwise (one stem root for every palm), watered with the same water; yet some of them We make more excellent than others to eat. Verily, in these things there are Ayat (proofs, evidences, lessons, signs) for the people who understand.

Surah 16. An-Nahl, Ayah 11

With it He causes to grow for you the crops, the olives, the date-palms, the grapes, and every kind of fruit. Verily! In this is indeed an evident proof and a manifest sign for people who give thought.

Surah 16. An-Nahl, Ayah 67

And from the fruits of date-palms and grapes, you derive strong drink and a goodly provision. Verily, therein is indeed a sign for people who have wisdom.

Surah 23. Al-Muminun, Ayah 19-20

19. Then We brought forth for you therewith gardens of date-palms and grapes, wherein is much fruit for you, and whereof you eat. 20. And a tree (olive) that springs forth from Mount Sinai, that grows (produces) oil, and (it is a)relish for

the eaters.

Surah 36. Ya-Sin, Ayah 34-35

34. And we have made therein gardens of date-palms and grapes, and We have caused springs of water to gush forth therein.

35. So that they may eat of the fruit thereof – and their hands made it not. Will they not, then, give thanks?

Punica granatum

English name - Pomegranate

Quranic References

Surah 6. Al-An'am, Ayah 99

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DISCUSSION

Finally, reading the Holy Quran is marvelous. For a botanist, such reading to a Holy book take more than one dimension and boost various aspects of biology. As for the biodiversity and germination, clear sites in the Quran documents those biological issues. Also, diverse uses of plants and the importance of plants for food and feed, folk medicine, shelter and shade and for every day life is reported distinctly in more than one verse in the

Holy Quran. The botanical voyage through various surahs and verses from such a unique book like the Quran can be a multidimensional trip. The smell, taste and texture of a plant together with the shade, which can be supplied from the trees and shrubs are experience learned form reading just one verse from the Quran.

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