Watermelon in Ancient Egypt

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ABSTRACT

The ancient Egyptian was famous for his association with nature, and even for its introduction in different areas of his life. Vegetables were widely known in the Egyptian civilization, as they appeared on the walls of temples and tombs, due to their importance in the ancient Egyptian religion and their association with offerings to the gods. One of the most important of these vegetables is watermelon, which spread widely in the ancient Egyptian civilization, and its sizes, shapes, and uses increased. It comes from ancient Egypt: Citrullus lanatus, the watermelon. The local kind of the juicy giants on the reliefs of the tombs as early as 5,000 years ago. The fruit was also a popular offering, as strengthening for the deceased on their way to the afterlife. Most of tombs paintings shows an elongated fruit instead of the round wild variety, which suggests that cultivated forms of the watermelon, must have existed even then. In addition to its many uses in life, food and medicine for humans, it has also become useful for nature, as recently a liquid hormone was extracted from the seeds of green watermelon that helps to double the sizes of other plants so that it becomes ten sizes of its normal size. The research aims to Shed light on watermelon and its terms and origin in the Egyptian civilization; Studying the types of watermelon that known in ancient Egypt; Exploring the uses of watermelon in daily life; Recognize the medical importance of watermelon in ancient Egyptian medicine.

Introduction

Watermelon is a member of the cucurbit family, which was famous for its many types in ancient Egypt, such as gourds, marrows, cucumber, and Cucumis melo \(^1\). The ancient Egyptians knew melons, which are rich in species, and made them as offerings. \(^2\)

\(^1\) A. Rolnik., and B. Olas.,"Vegetables from the Cucurbitaceae Family and Their Products: Positive Effect on Human Health". Nutrition 78, 2020, P.2.

\(^2\) F. Woening., "Die Pflanzen im Alten Ägypten", Leipzig, Verlag Von Albert Heitz. 1897, P.201.

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Melons were known in the Old Kingdom as \( \text{dnrg} \) and in the New Kingdom, \( \lambda\text{MOI}\Pi\text{POG} \) in Coptic, and was one of the earliest cucurbits to be cultivated in the ancient world.  

I. The Terms of Watermelon:
Watermelon, "\( \text{Citrus lanatus} \)" (Fig.1) or \( \text{Citrus vulgaris} \), an annual plant of the cucurbit species, which has been cultivated since ancient ages. It is known in Egypt since the Old Kingdom and was of the type known as "\( C. \text{colocynthoides} \)" (Fig.2).  

It was known in the ancient Egyptian language as \( \text{bddw. kA} \), while in most medical prescriptions were written as \( \text{pi-betuke or pi-betikhe} \) also was known as \( \mu\text{ELEPO}\text{POG} \) in Greek and (Battikh - بطيخ) in Arabic.  

The relation between the Arabic, Coptic, and Hebrew names of this plant justifies the identification of \( \text{bddw. kA} \) with watermelon. Leaves of the plant were found in the coffin of Neb-seni at Deir el-Bahari of the 12\(^{th}\) dynasty, also, its seeds were found in the tomb of Tutankhamun, and some of its seeds were in the Berlin Museum.  

Remains of watermelon were reported from, the fifth dynasty temple of Sahura at Abusir and Kahun of 12\(^{th}\) dynasty and of the 18\(^{th}\) dynasty settlement of Amarna. This special variety of melons is widely cultivated in Egypt and Sudan, native to tropical Africa and the Egyptians planted it in abundance.

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3 Wb V, S. 470.
4 Līz Mānīkā, "līz maqīmīn fī Mārṣ al-qāmiqīn", Ṭeṣāmūh ʿAḥmad Zāhir, Mīktābī Mīdūnī, qāmiqā, 2008, S. 204.
5 P. Nicholson, and I., Shaw, "Ancient Egyptian Materials and Technology", Cambridge University press. 2009, P.643.
6 J.G. Vaughan, C.A. Geissler, E. Dowe and B.E. Nicholson. "The New Oxford Book of Food Plants" Oxford University Press. 2008. P 137.
7 ʿAḥmad Qadma, "Qamās al-ʿaṣāba fī al-tadawwī bīl-allāhīn" Bīrub, Dār al-tafāsir, 1982, S. 119.
8 W. J. Darby, P. Ghalioungui and L. Grivetti, "Food: gift of Osiris". London: Academic Press, 1977, P. 717.
9 W. J. Darby, P. Ghalioungui and L. Grivetti, op. cit. P. 717.
10 Ibid., P. 718
11 H. W. Deines and H. Grapow. "Wörterbuch der Ägyptischen Drogennamen" Berlin: Akademie Verlag. 1959, S.189.
12 R. Germer, "Flora des Pharaoischen Ägypten", Deutsches Archäologisches Institut Abteilung Kairo, (1985), P127.
13 Līz Mānīkā, al-murūj al-sālih, S. 1497.
14 W. J. Darby, P. Ghalioungui and L. Grivetti, op. cit, P. 717.
15 Ibid., P. 718
16 Ḥusn Kāmil, "līz maqīmīn fī Mārṣ al-qāmiqā", Mīktābī Māriqā, qāmiqā, 1989, S. 154.
17 P. Nicholson., And I., Shaw, op, cit, P.634
18 R. Germer, op, cit, p. 127.
II. The Cultivation of Watermelon:
The watermelon was cultivated in the Nile valley by at least the 5th dynasty and probably earlier (Fig.3).19 it is grown very strong and of excellent quality in the delta; after the Nile floods, it often develops fruits 75 cm long in the rich loamy soil.20

Despite needing a ready water supply, a hot and dry climate is suitable for watermelon as it can grow in various kinds of soils but best on light sandy loam21; it was planted first on the riverbanks after the flood then it became widespread.22

The seeds are first soaked in water for 24 hours, then holes are drilled in the rows that are approximately two meters apart,23 and if sown in March, the fruit generally begins to ripen three and a half to four and a half months later while those sown in July or August ripen in October or November.24

The plant continues to fruit for six weeks, and the melon is ripening when it detaches easily from the vine leaving a clean scar on the fruit.25

III. The Different Kinds of Watermelon and Properties:
The wild kind C. colocynthis has characteristically small seeds of the wild kind, appears in several sites in Egypt and the Near East, pointing to the fact that it was probably used prior to the domestic kind.26

According to Keimer, the type of large watermelon, or what is known as a yellow watermelon (Fig.4),27, was widespread in ancient Egypt, and its seeds are found in the remains of the Temple of Sahure in the Berlin Museum.28 Moreover, there is a sweet watermelon, "C. Dudalm L. var Ægyptiacus" (Fig.5)29 also known as melon Egyptian.30

The wild kind, known as Colocynthoides, is known for being small in size with no taste; its flesh is white and it used to be cultivated in Upper Egypt, its seeds are

19 D. J.,Brewer, D. B. Redford, and S. Redford. "Domestic Plants and Animals". Warminster: Aris & Phillips. England, 1995, P.65
20 F. Woenig, op, cit, p. 202
21 M. P. Charles. "Onions, Cucumbers and The Date Palm", BSA III, 1987, P.6.
22 G. P. Foaden and F. Fletcher, "Text-Book of Egyptian Agriculture" Cairo, National Printing Department, 2, 1910, p.660.
23 P. Nicholson., And I., Shaw, op, cit, P.634
24 G. P. Foaden and F. Fletcher, op. cit., P.662-3.
25 Ibid. P.664.
26 Brewer, D., Redford, D., Redford, S., op, cit. P.66
27 أحمد قدامه، المزجع الظبثق, ص ٠٧.
28 L. Keimer. "Die Gartenpflanzen im Alten Ägypten". I, Berlin. Hoffmann und Campe Verlag, 1924, p13.
29 ارمياك ك هدفيان، "المعجم المصغر لأسماء النباتات", مكتبته مديوني. القاهرة، ٢٠٠٦، ص ٢١٢.
30 J.G. Vaughan, C.A. Geissler, E. Dowle, And B.E. Nicholson, op. cit., p.134.

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extracted and eaten today\(^{31}\); its small spherical fruits have a bitter taste and are not edible, the numerous brown seeds contained in it are eaten today roasted and salted.\(^{32}\)

While *Citrullus lanatus* is spreading climber with three to five lobed hairy leaves and yellow flowers, the fruits are green and contain a juicy red, yellow or white flesh with many smooth seeds scattered inside.\(^{33}\)

The kind that was known in ancient Egypt is the *C. colocynthis* while the other kind known as *C. lanatus* wasn’t known until much later than the first one.\(^{34}\)

The fruits appear in summer and are 94% water, carbohydrates and sugar; the fruits, leaves, flowers and seeds are edible with the seeds containing protein, oil, vitamin E and fiber.\(^{35}\) Typical of this plant is the deeply lobed leaves, the individual lobes of which are in turn feticidal; the tendrils branch out and the large flowers are yellow.\(^{36}\)

**IV. Watermelon in Daily Life:**

Watermelon is not depicted in abundance on offering tables,\(^{37}\) but if any, it was depicted in a spherical shape and colored green.\(^{38}\) \(^{(Fig.6)}\)\(^{39}\) Also it was used in food and its seeds as snacks; it was as well used in medicine as it was mentioned in the Berlin papyrus.\(^{40}\)

The pale unsavory meat of the wild kind is fed to camels and donkeys,\(^{41}\) also the seeds of watermelon have been used as food since the predynastic era as it was found in the intestinal contents of a prehistoric mummy.\(^{42}\)

Its leaves were used to decorate mummies and coffins for the dead, so this enabled it to revive the deceased when the soul returns to him in the next life.\(^{43}\)

**IV-1. Watermelon in Ancient Egyptian Diet:**

Finding watermelon seeds in the intestinal contents of Old Kingdom bodies established the antiquity of this fruit as food; it was mentioned among the pleasant foods enjoyed by the people in ancient Egypt.\(^{44}\)

It can be eaten fresh,\(^{45}\) and the seeds of watermelon were roasted and eaten in ancient times, as it is done today as well.\(^{46}\) The young leaves that contain vitamin A are edible and the outer shell used as a vegetable, which added to, soups or used as a relish.\(^{47}\)
The cold juice of watermelon serves as refreshment as well as the fruits, which of course do not have the taste as European melon;\textsuperscript{48} it was often represented as an offering or given to guests.\textsuperscript{49} The fruit as well as the seeds are widely consumed in the Middle East and a certain kind of oil can be extracted from the seeds.\textsuperscript{50}

**IV-2-Watermelon in Ancient Egyptian Medicine:**

Watermelon was used internally, in suppositories, in ointments and in an obstetric prognostic test\textsuperscript{51}; it was mentioned in the Berlin papyrus "Mix watermelon with the milk of a lady that gave birth to a boy, and give the mix to another lady, if she vomits she would bear children otherwise she will not".\textsuperscript{52}

Fruits of the wild kind are now collected by the Bedouins for their medicinal value as it has a strong purgative effect and it is said that a slice of watermelon can help heal the foot when tied to it, relieving pain.\textsuperscript{53}

Watermelon was prescribed as a cure for fingers shuddering "Massage the finger with oil and then bandage it with watermelon"\textsuperscript{54}; the seeds and leaves were also used in the prescriptions used by the Egyptian women to increase their weight.\textsuperscript{55}

The seeds were used as a treatment for high blood pressure, and the juice of the roots was used to stop bleeding and as an aphrodisiac,\textsuperscript{56} also it was used to get rid of the heat on the anus and bladder.

**Ebers Papyrus n. 139. A remedy for eliminating the heat from the anus and the bladder**\textsuperscript{57}:

\begin{verbatim}
kt pXrt nt dr tAw Hr pHwy Hr Spty.t n wnn Hr Ddw aSA n Hr.f ibw wa HmAt wa bddw kA wa bit wa nD m x twat ir m mt rA m pHwy.
\end{verbatim}

\textsuperscript{45} B. E. Nicholson, S. G. Harrison, G. B., Masefield and M. Wallis, "The Oxford Book of Food and Plants" Oxford: University Press, 1969, p.120.
\textsuperscript{46} Brewer, D., Redford, D., Redford, and S., op cit, P.66
\textsuperscript{47} FAO 1988, P.188.
\textsuperscript{48} F. Woenig, op, cit, P. 202
\textsuperscript{49} Sir A. Ruffer, op, cit, P. 63
\textsuperscript{50} ليش مبويكخ، المزجع الظبثق، ص 280
\textsuperscript{51} W. J. Darby, P. Ghalioungui and L. Grivetti, op, cit, P. 718
\textsuperscript{52} حسن خطاب, المزجع السابق، ص 130
\textsuperscript{53} Brewer, D., Redford, D., Redford, and S., op cit, P.66
\textsuperscript{54} ليش مبويكخ، المزجع السابق، ص 280.
\textsuperscript{55} J.F. Nunn. "Ancient Egyptian Medicine". Noman: University of Oklahoma Press, 1996, p.15.
\textsuperscript{56} سمير يحيي العمري، التاريخ الطب والصيدلة في مصر الفرعونية، الهيئة العامة المصرية للكتاب، 1994، ص 490.
\textsuperscript{57} W. Wreszinski. "Der Ebers Papyrus" Leipzig: J.C. Hinrich'sche Buchhandlung, 1913, P38.
Another remedy to eliminate the heat out of the anus and the bladder: *ibw plant* 1ro, salt 1ro, watermelon 1 ro, and honey 1 ro. grind together into a mass; made into a suppository; then put into the anus.

**Berlin papyrus, n. 111: A cure for epilepsy.**
Watermelon and wine mixed, then given for the patient to drink.

**Ebers Papyrus, n. 208. A remedy for bowel obstruction.**

Another remedy for clearing a blockage in the stomach: Jujube bread 1ro, watermelon 1ro, *cat feces* 1 ro, sweet beer 1 ro, wine 1 ro. made into a mass and bandaged therewith.

**Ebers Papyrus, n.213. Another Remedy for the Bowel Obstruction.**

Another remedy for clearing a blockage in the stomach: Ziziphus bread 1 ro, cat dung 1ro, *red ocher* "mnS.t" , watermelon 1 ro, sweet beer 1 ro and wine 1 ro. Then made into a mass and bandaged therewith.

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58 *Ibw plant*: is a tree sacred to hours and it also used in medicine. After: Budge, E. A. W."An Egyptian Hieroglyphics Dictionary" vol 1, New York: Devor, 1978, p.39.

59 W. Wreszinski, "Der Grosse Medicinische Papyrus Des Berliner Museums (Pap. Berl. 3038)". Leipzig: J.C. Hinrichs, 1909, P. 277

60 F. Enson."Egyptian Medicine in the Days of the Pharaohs", Alexandria, 1987.p.109.

61* The Cat: miw, The cat is a mammal of the feline family. Cats were among the domesticated animals in ancient Egypt, and they multiplied until they became a symbol of the sacred god Bastet. Also, the cat was mentioned in medical papyri frequently. After: أمين معلوف، "معجم الحيوان", 1973، ص 9، 10، 11. رادا كاظم بلغ، المزجع الظبثق، ص 22.

62 W. Wreszinski. "Der Ebers Papyrus", 1913, P.46.

63*Red Ocher: Ocher is the hydrate of iron oxide with a yellow color sty, also the ocher has another color which is red mnS.t and it was used as a treatment for burns and infections and for cooling the anus. After: H. Kamal, "Dictionary of Pharaonic Medicine", 1967, P.249. H. R. Harris,"Ancient Egyptian Mineral", 1961, P.150.
Hearst Papyrus, n.117. A remedy for softening the vessel of the Foot toe.64
Onion 1, watermelon 1, sea salt 1, honey 1, oil of oil 1, fat of ox 1, honeydew 1, made as a mass and then bandage with it.

Conclusion.
- There is no evidences for the existence of watermelon since the pre-dynastic era, and most of the evidence proves its existence from the 5th dynasty of the Old Kingdom.
- There is two types of watermelons that spread widely in ancient Egypt, the wild kind, which is known as C. colocynthis and the local kind, which is known as C. lanatus.
- Watermelon is not widely depicted on the walls of temples or tombs, despite its many uses in medicine.
- Most of the scenes depicted on the walls of tombs and temples belong to the type of large watermelon known as the yellow watermelon.
- Except the C. lanatus, the other kinds of watermelon were brought to Egypt.

Kinds of watermelons that known in ancient Egypt.

| The Kind                | Scientific name                                  | Fig |
|-------------------------|--------------------------------------------------|-----|
| The local kind          | Citrullus lanatus.                               | Fig.1|
| The wild kind           | Citrullus Colocynthoides                         | Fig.2|
| Yellow watermelon       | Curcurbitaceae Maxima Duch                       | Fig.4|
| Sweet watermelon        | "Melon Egyptian" C. Dudalm L. var Ægyptiacus     | Fig.5|

Bibliography.
- Brewer, Douglas J, Donald B Redford, and Susan Redford., Domestic Plants and Animals. Warminster: Aris & Phillips, England, 1995.
- Budge, E. A. Wallis., An Egyptian Hieroglyphic Dictionary, With an Index of English Words, King List, and Geographical List with Indexes, List of Hieroglyphic Characters, Coptic and Semitic Alphabets, etc. Vols. 1-2. New York: Dover, 1978.
- Charles M.P., “Onions, Cucumbers and the Date Palm”, BSA III, PP.1-21, 1987.
- Darby, William J, Paul Galioungui, and Louis Grivetti., Food: Gift of Osiris. V2. Academic Press. London, 1977.
- Enson F., Egyptian Medicine in the Days of the Pharaohs, Alexandria, 1987.
- FAO., “Traditional Food Plants: A Resource Book for Promoting the Exploitation and Consumption of Food Plants in Arid, Semi – arid and Sub-humid Lands of Eastern Africa.” FAO Food and Nutrition Paper 42. Rome: FAO (Food and Agricultural Organization of the United Nations, 1988.
- Fletcher, F., & Foaden, G., Text-Book of Egyptian Agriculture: II. National Print. Department, Cairo, 1910.
- Germer, R., Flora Des Pharaonischen Ägypten. Mainz Am Rhein: Philipp von Zabern, 1985.
- Harris, J. R, Lexicographical Studies in Ancient Egyptian Minerals. Akademie Verlag, Berlin, 1961.
- Wreszinski, W., Der Grosse Medizinische Papyrus des Berliner Mmuseums (Pap. Berl. 3038) in Facsimile und Umschrift Mit Übersetzung, Kommentar und Glossar: J.C. Hinrichs, Leipzig, 1909.
- Kamal, H. M., A Dictionary of Pharaonic Medicine. The National Publication House, Cairo, 1976.
- Keimer, L., Die Gartenpflanzen Im Alten Ägypten. I. Hoffmann und Campe Verlag, 1924.
- Nicholson, Paul, and Ian Shaw., Ancient Egyptian Materials and Technology. New York: Cambridge University Press, 2009.
- Nunn, J. F., Ancient Egyptian Medicine. Norman, University of Oklahoma Press, 1996.
- Rolnik, A. & Olas, B., Vegetables from Cucurbitaceae Family and their Products; Positive Effect on Human health. Nutrition. 78. 110788. 10.1016/j.nut.2020.110788, 2020.
- Ruffer, A., Food in Egypt. Institut Français D'archéologie Orientale du Caire., & Institut d'Égypte, Impr. De l'Institut français D'archéologie Orientale, Le Caire, 1919.
- Harrison S. G., Masefield G. B., Nicholson B. E., & Wallis M., The Oxford Book of Food Plants. Oxford: University Press, 1969.
- Vaughan, J. G., Geissler, C., Nicholson, B., Dowle, E., & Rice, E., The New Oxford Book of Food Plants. Oxford: Oxford University Press, 2009.
- Von Deines, H., & Grapow, H., Wörterbuch der Ägyptischen Drogennamen. Akademie-Verlag, Berlin, 1959.
- Woenig, F., Die Pflanzen Im Alten Ägypten. Friedrich, Leipzig, 1886.
- Wreszinski, W., Der Papyrus Ebers. J.C. Hinrichs'sche Buchhandlung, Leipzig, 1913.

المراجع العربية:
- ازمناك ك بيكفين. المعجم المصري لأسماء النباتات، مكتبة مدبولي، القاهرة. 2006.
- ليز مانيكة، التداوي بالأعشاب في مصر القديمة. ترجمة أحمد زهير أمين. مراجعه محمود ماهر طه. مكتبة مدبولي، القاهرة. 1993.
- حسن كمال. الطب المصري القديم. ج.2، الهيئة المصرية العامة للكتاب، القاهرة. 1998.
- أحمد قدامة. قاموس الغذاء والتناوي بالنباتات، دار النقاش، بيروت، 1982.
- حسن خطاب. الثروة النباتية في مصر القديمة، الهيئة العامة لشنو المطبخ الأميري، القاهرة، 1998.
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J.G. Vaughan, C.A. Geissler, E. Dowle. And B.E. Nicholson, 2008, p 137.

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R. Germer, 1985, p 127.
Fig. 3. Watermelon on the offering table. Tomb of two brothers, Saqqara, 5th dynasty. D. J. Brewer, D. B. Redford, and S. Redford, 1995, p. 66.

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أحمد قادم، 1982، ص. 72.

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إرمناك ك. يديفان، 2012، ص. 212.

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ليز ماتيكه، 1993، ص. 19.
البطيخ في مصر القديمة

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ملخص

يرجع نشر البطيخ في الحضارة المصرية القديمة إلى عهد المصري القديم، حيث ارتبط في البداية بالطبيعة واستخدامها في مجالات مختلفة من حياته. انتشرت الخضروات في الحضارة المصرية، حيث ظهرت عمى جدران المعابد والمقابر، وذلك لأهميتها في الديانة المصرية القديمة وارتباطها بالقرابين للآلهة. ومن أهم هذه الخضروات البطيخ الذي انتشر بشكل كبير في الحضارة المصرية القديمة، وتأيدت أ(OP:72|44)OP:72|44) أمته وأشكاله واستخداماته. ظهر في مصر القديمة أنواع عدة من البطيخ من مصر القديمة، النوع المحلي وهو الأشهر، والذي ظهر على نقوش المقابر منذ 5000 عام، بل أن الثمرة أيضًا كانت توضع مع جثمان المتوفى لإنعاشه في الحياة الأخرى. تظهر معظم رسومات المقابر للبطيخ بشكل محدود أحيانًا بدلاً من النوع البري المستدير، مما يشير إلى وجود أشكال مختلفة للبطيخ زرعت في مصر القديمة. اعتمدت علية المصري القديم في استخدامات عدة في الحياة والغذاء والعلاج، أصبح البطيخ مفيدًا أيضًا للطبيعة، حيث تم استخلاص هرمون سائل من بذور البطيخ الأخضر الذي يساعد على مضاعفة أحجام النباتات الأخرى بحيث تصبح عشرة أحجام حجمها الطبيعي. يهدف البحث إلى إضاءة الضوء على البطيخ وأسماءه وأصمو في الحضارة المصرية، دراسة أنواع البطيخ التي عرفت في مصر القديمة، التعريف على استخدامات البطيخ في الحياة اليومية، والتعريف على الأهمية الطبية للبطيخ في الطب المصري القديم.