

SOME RECORDS CONCERNING PALMS IN THE PLANT KINGDOM.

Manuel Rojo Alejos y Javier Segura Cañizares
PALMASUR ESTUDIOS Y PROYECTOS S.L.
<http://www.palmerasyjardines.com>

(When the sources consulted provide different figures, we have chosen the highest.)

1.- The Date Palm (*Phoenix dactylifera* L.) produces more matter in its lifetime than any other plant: more than 100 tonnes.

On average, every palm tree produces 75 kg of dates annually (in oases, this average decreases to 25 kg). With an average longevity of 400 years, each tree is capable of producing a total of 30 tonnes of dates. However, palm trees that are cut regularly can produce up to 90 kg per year, or in other words, around 36 tonnes in their lifetime. If the foliar crown and trunk are added to this, a tree's production can reach 100 tonnes. Furthermore, incisions made in the crown of a tree between December and March can yield from 500 to 1000 litres of sap annually for a period of 30-40 years. This liquid, which is called lagmi or laghi in the Maghreb, ferments in just a few hours and makes a refreshing, alcoholic drink.

- . PICÓ MELÉNDEZ, F. (2002) “La palmera datilera, el Árbol de la Vida” en NUEZ, FERNANDO (Ed.). *La herencia árabe en la agricultura y el bienestar de Occidente*. Universidad Politécnica de Valencia, 2002. p. 210.
- . HERVÉ, ALAIN. (1999) *Le palmier*. Actes Sud. Arles, 1999. p. 53.
- . BIRCHER, WARDA H. (1995) *The Date Palm. A Friend and Companion of Man*. Elias Modern Publishing House. Cairo, 1995. p. 104.

2.- The Date Palm (*Phoenix dactylifera* L.) is the fruit species with the highest tolerance levels of ground and water salinity.

- . CAÑIZO, JOSÉ ANTONIO DEL (2002) *Palmeras*. Mundi Prensa. Madrid, p. 290.

3.- The Date palm is probably the oldest cultivated plant.

- . ZAID, A.; WET, P.F. DE (2002) “Origin, geographical distribution and nutritional values of date palm”. ZAID, ABDELOUAHHAB (ed.) *Date palm cultivation*. 156. Rev. 1. Cap. II. 1. Origin of date palm.
<http://www.fao.org/docrep/006/Y4360E/y4360e00.HTM> (23-Oct-08).

4.- The fruit of the Date Palm is the one with the most names: there are thousands.

Of these thousands of names, however, only around 100 are known away from the area of cultivation, and only a few dozen are employed in the international trade market.

-. BIRCHER, WARDA H. (1995) *The Date Palm. A Friend and Companion of Man*. Elias Modern Publishing House. Cairo, 1995. pp. xxv, xxvi y 122.

5.- The Date Palm (*Phoenix dactylifera* L.) is the plant with the most named varieties: there are thousands.

-. BIRCHER, WARDA H. (1995) *The Date Palm. A Friend and Companion of Man*. Elias Modern Publishing House. Cairo, 1995. p. xxv.

5.- The Date Palm is the plant with more attributes and symbols: more than two hundred.

-. The authors.

7.- The Date Palm is the plant which holds the most records in the whole plant kingdom.

-. The authors.

8.- The leaves of the African Palm *Raphia regalis* are longer than those of any other plant: twenty-five metres.

<http://forums.gardenweb.com/forums/load/botany/msg110953259218.html> (8-mayo-2006).

-. DUBOIS, R. et al. (1999) "Les Palmiers. Dinosaures du règne vegetal aujourd'ui seigneurs menacés". *Hommes & Plantes*. Numéro 29. Printemps, p. 38.

- HALLÉ, FRANCIS (1995) "Les Palmiers de la famille des records". *Le Palmier*. 13, p. 15.

9.- The African Palm has the largest leaves, growing to a length of 25 metres with a breadth of 4.90 metres.

-. HALLÉ, FRANCIS (1995) "Les Palmiers de la famille des records". *Le Palmier*. 13, p. 15.

-. Jardin Botanique de la Villa Thuret. 90, Chemin Raymond - 06160 Antibes Juan-les-Pins. France. Guide.

10.- The African Palm has the heaviest leaves: 100 kg.

-. HALLÉ, FRANCIS (1995) "Les Palmiers de la famille des records". *Le Palmier*. 13, p. 15.

11.- The *Corypha umbraculifera*, which is found in India, has the widest leaves. Its palm fans can measure up to five metres in diameter.

-. CAÑIZO, JOSÉ ANTONIO DEL (2002) *Palmeras*. Mundi Prensa. Madrid, pp. 59 y 60.

-. Jardin Botanique de la Villa Thuret. 90, Chemin Raymond - 06160 Antibes Juan-les-Pins. France. Guide.

12.- The *Corypha umbraculifera* has the largest branched inflorescence in the plant kingdom: it can reach nine metres in height and three in width with more than 24 million flowers. Similar to plants of the agave genus, flowering takes place on the apical buds (after 50 years) and once the fruits appear, the palm dies.

The largest inflorescence, not branched, is the Corpse Flower, Titan Arum or Mr. Stinky (*Amorphophallus Titanum*). It grows around 10 cm per day until it reaches an average of 2.50 m in height, approximately 1 m in diameter and 75 kg in weight. After this, the "flower" only lives for three days.

- . HERVÉ, ALAIN. (1999) *Le palmier*. Actes Sud. Arles, 1999. pp. 32-3.
- . DUBOIS, R. et al. (1999) "Les Palmiers. Dinosaures du règne vegetal aujourd'ui seigneurs menacés". *Hommes & Plantes*. Numéro 29. Printemps, p. 38.
- . HALLÉ, FRANCIS (1995) "Les Palmiers de la famille des records". *Le Palmier*. 13, p. 15.
- . Jardin Botanique de la Villa Thuret. 90, Chemin Raymond - 06160 Antibes Juan-les-Pins. France. Guide.

13.- The *Elaeis guinensis*, or Oil Palm, produces the largest infrutescences of the world (25 kg and 4000 fruits).

- . DUBOIS, R. et al. (1999) "Les Palmiers. Dinosaures du règne vegetal aujourd'ui seigneurs menacés". *Hommes & Plantes*. Numéro 29. Printemps, p. 38.
- . Jardin Botanique de la Villa Thuret. 90, Chemin Raymond - 06160 Antibes Juan-les-Pins. France. Guide.

14.- The largest known fruit is produced by the Coco de Mer, or Sea Coconut, (*Lodoicea maldivica*), a palm which originates from the Maldives and the Seychelles. Its double coconuts can measure up to 40 centimetres in width and one metre in perimeter, and can weigh up to 30 kilos. The ripening period of the fruit is twelve years.

- . HERVÉ, ALAIN. (1999) *Le palmier*. Actes Sud. Arles, 1999. p. 33.
- . DUBOIS, R. et al. (1999) "Les Palmiers. Dinosaures du règne vegetal aujourd'ui seigneurs menacés". *Hommes & Plantes*. Numéro 29. Printemps, p. 38.
- . CAÑIZO, JOSÉ ANTONIO DEL (2002) *Palmeras*. Mundi Prensa. Madrid, p. 60.
- . HALLÉ, FRANCIS (1995) "Les Palmiers de la famille des records". *Le Palmier*. 13, p. 15.
- . Jardin Botanique de la Villa Thuret. 90, Chemin Raymond - 06160 Antibes Juan-les-Pins. France. Guide.

15.- The largest seed in the world also comes from the Coco de Mer.

- . CAÑIZO, JOSÉ ANTONIO DEL (2002) *Palmeras*. Mundi Prensa. Madrid, p. 60.
- . HALLÉ, FRANCIS (1995) "Les Palmiers de la famille des records". *Le Palmier*. 13, p. 15.

16.- The largest trunk belongs to the Malaisian climbing palm *Calamus rotang* (Rattan palm) which, with a diameter of 20 to 30 millimetres, can reach up

to two hundred metres in length.

The tallest known trees, the *Eucalyptus regnans* of Australia, grow to 150 metres.

-. HERVÉ, ALAIN. *Le palmier*. Actes Sud. Arles, 1999. p. 23.

-. DUBOIS, R. et al. (1999) “Les Palmiers. Dinosaures du règne vegetal aujourd’ui seigneurs menacés”. *Hommes & Plantes*. Numéro 29. Printemps, p. 38.

17.- The national “tree” of Colombia (Law 61 of 16 September, 1985, Art. 1), the Quindio Wax Palm (*Ceroxylon quindiuense*) can grow up to 80 metres high. It is actually a giant grass, which makes it the tallest non-branching plant in the world.

Some trees, such as the Sequoias, do exceed 100 metres, but these are woody, branching plants.

-. DUBOIS, R. et al. (1999) “Les Palmiers. Dinosaures du règne vegetal aujourd’ui seigneurs menacés”. *Hommes & Plantes*. Numéro 29. Printemps, p. 38.

-. Jardin Botanique de la Villa Thuret. 90, Chemin Raymond - 06160 Antibes Juan-les-Pins. France. Guide.

18.- If we consider its slight diameter of less than 40 centimetres, the world’s tallest non-branching plant, the Quindio Wax Palm, can also be categorized as the most slender and graceful in the world.

-. CAÑIZO, JOSÉ ANTONIO DEL (2002) *Palmeras*. Mundi Prensa. Madrid, p. 59.

19.- Moreover, the Quindio Wax Palm holds the altitude record for monocotyledons as they are often found growing at over 3,500 metres above sea level.

-. Jardin Botanique de la Villa Thuret. 90, Chemin Raymond - 06160 Antibes Juan-les-Pins. France. Guide.

20.- Among the monocotyledonous plants (lacking cambium or whose trunks do not have annual growth rings), the *Borassus* and *Jubaea* palms share the record for the largest trunk (over 2 metres diameter and over 6 metres circumference).

-. HALLÉ, FRANCIS (1995) “Les Palmiers de la famille des records”. *Le Palmier*. 13, p. 14.

-. SHIELDS, MICHAEL J. (1995) “Borassus in Rufiji”. *Palm Enthusiast*. July. pp. 22-3.

-. Jardin botanique de la villa Thuret. 90, chemin Raymond - 06160 Antibes Juan-les-Pins. France. Guide.

21.- The American palm *Phytelephas macrocarpa* has the hardest seed in the world. Its albumen is the “vegetable ivory”.

-. HALLÉ, FRANCIS (1995) “Les Palmiers de la famille des records”. *Le Palmier*. 13, p. 15.

22.- The most cultivated “trees” in the world are the Coconut Palm (*Cocos nucifera*), the Oil Palm (*Elaeis guinensis*) and the Date Palm (*Phoenix dactylifera*).

-. HALLÉ, FRANCIS (1995) “Les Palmiers de la famille des records”. *Le Palmier*. 13, p. 15.

23.- This is the family with the widest range of habitats. The only family capable of growing in regions varying from the very humid equatorial rain forests to absolute deserts, from the mangrove swamps of the tropical coasts to areas of almost permanent snow.

-. HALLÉ, FRANCIS (1995) “Les Palmiers de la famille des records”. *Le Palmier*. 13, p. 14.

24.- The plant with the most uses (more than 5000 in Sri Lanka) is *Borassus flabellifer*, which is also known as the Black Palm, the Sugar Palm, Toddy or Wine Palm.

The Tamil poem “*Tala Vilasam*” (*The Glory of the Palm Tree*) by Arunachalam lists 801 uses. The poem can be found in various books, such as DE MICHELI, F. and DE SANTIS, F. *Palma Palmae*. Pendragon. Bologna, 2001. pp. 189-203.

-. HAYNES, J. Y MCLAUGHLIN, J. (2000) “Edible Palms and Their Uses”. University of Florida. Fact Sheet MDCE-00-50-1. Nov., p. 4.
http://www.plantapalm.com/vpe/ethnobotany/vpe_ethnobotany.htm (10-mayo-2006)

-. HERVÉ, ALAIN. (1999) *Le palmier*. Actes Sud. Arles, 1999. p. 13.

25.- The palm is the plant that has most inspired the poets.

-. HALLÉ, FRANCIS (1995) “Les Palmiers de la famille des records”. *Le Palmier*. 13, p. 15.

26.- The sumptuous Royal Palms (*Roystonea elata* and *Roystonea oleracea*), which originated in the Antilles, are some 30 metres high and form some of the most beautiful lines of trees in the Tropics. This is, of course, a record concerning elegance, and is thus subjective.

-. DUBOIS, R. et al. (1999) “Les Palmiers. Dinosaures du règne vegetal aujourd’ui seigneurs menacés”. *Hommes & Plantes*. Numéro 29. Printemps, p. 38.

27.- Palms are the plants which hold the most records in the whole plant kingdom.

-. DUBOIS, R. et al. (1999) “Les Palmiers. Dinosaures du règne vegetal aujourd’ui seigneurs menacés”. *Hommes & Plantes*. Numéro 29. Printemps, p. 38.