

## Snakes in Paradise<sup>1</sup>

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I would like permission to sing praises to the date-palm, to write a fine verse about it, and to laud it in every way. The beautiful sighing date palm with its sky-high trunks, waving branches, and red-gold fruit clusters which glimmer and shine like flaming logs.

Date palms edge the shores of the Nile and ring themselves around the oases. They shoot up between the clay huts and give villages their shade. If one travels up to the Mediterranean coastal area, they grow there in the midst of sand dunes.

They start their lives as a groundshoot. Around every palm a cluster of small palms builds up, and these are those which are used for increasing the numbers (of palms). To set out pips takes too long a time, and one cannot tell which gender will result. Perhaps they will be all male, for one cannot tell till the fruit comes. With a basal sucker, one can be certain that both gender and cultivar are known. In Egypt, there are at least 40 varieties, if not more.

Autumn is the date palm's season. That is when the fruit cluster becomes red, and they show in all colors from yellow gold to scarlet-red and chestnut-brown. Each kind has its color, its shape, its size, and the handlers for the most part know how to differentiate between them, merely by the appearance of the wood itself.

Palms also have economic value, capi-

tal worth, and are therefore listed and counted. In former times people paid taxes on them, but nowadays that has been abolished.

But, nothing is abolished without consequences! Much work is involved, not only with special handling of the suckers, but also with harvesting the crop.

In the spring when the palms bloom, one must climb up the male trees, and remove the male inflorescences. They must then be cut into small pieces, and then someone climbs the female trees and fastens a tuft in every palm crown. Then the wind does the rest. One male tree usually serves to fertilize 30 to 40 female trees or more.

The stately date palm is much admired by people even when it requires being disseminated. It is the women who take the suckers to the far-off desert springs. The women are the ones who care for them and water them before the roots have taken hold. Without this work by the women, the palm tree would be extinct.

One might well guess that without the date palm, people would not have survived, at least not in the North African desert areas. The date palm is the Bedouin's bread, especially the bone-hard, dry date palm fruit, which is not very sweet to the taste. The Bedouin builds his huts in places wooded with date palms, and makes his household furniture of its leaves and fibers.

Along the Mediterranean coast (Egypt), palms are planted in deep hollows, in order to have a little shade at their start to withstand the strong salt sea winds.

<sup>1</sup> Translated by Eva Filbin from "Pharaoh's Flowers (Faraos Blomster)," a book in Swedish by Vivi Laurent-Täckholm who was long associated with the Herbarium at Cairo University and who is author (with Drar) of the "Flora of Egypt." Submitted by Walter H. Hodge.

If one comes to the coast in the autumn, when the fruit clusters are ready to harvest, one can perhaps meet up with someone who fires shots at one palm tree after another. The shots resound among the sand dunes and echo over the whole terrain. What is happening? ask those who don't know.

There is a snake in paradise, a snake being shot at. There is a snake up there in the high crown of the tree. When the dates are ripe, birds come to feast on them, and in the birds' wake, snakes slither in to get their taste. How they manage to enter the stems is a mystery. But now and then, when a shot has sounded, a dead snake falls down from the palm. Then, one's doubts are confirmed, and one knows the shot has been well aimed.

But shots ring out only in the autumn, and only at harvest time. Otherwise, it is peaceful up high in the date palm crowns, and only the wind sighs.

### Inseparable Companions

Where does the mighty date palm come from? It is known only as a cultivated plant. But it is grown in the entire desert area from the Atlantic coast of Africa in the west to India's boundaries in the east. It has been found from Asia Minor to and including the southern coasts of Europe, but in those places it seldom bears fruit.

There are three wild date palm species which have competed for the distinction of being considered ancestors of the common date palm. These are the Canary Island date palm, *Phoenix canariensis*, Central Africa's date palm, *P. reclinata*, and one of India's many date palms, *P. sylvestris*. However, the Canary Island palm has different fruit, and the African palm different blossoms, which leaves only the Indian palm as the one to consider as ancestral. The latter differs from the common date palm in that it does not have suckers or offshoots and that it requires more moisture.

If one examines the date palm's area of cultivation, one makes a discovery. It is exactly the same as the so-called Mediterranean population, which includes (in itself) both the Hamitic and the Semitic strains (cultures). The distribution (of the palms) coincides extraordinarily well with these human populations, even in the southernmost areas of the distribution, where the palms are abundant in the territories of the Ethiopian peoples.

One must remember that the Mediterranean peoples originated out of the Indian-Dravidian race ages ago in the Tigris-Euphrates area. At that time the Mediterranean shores were occupied by the Grimaldi strain, people of the Paleolithic period, and deserts did not then exist in North Africa as they do now. Instead, the climate was rich in rain and the herds of cattle of the Grimaldi people fed on luxuriant grasslands.

But the climate changed. Rain became rare, and the grasslands became deserts. Out of many deserts grew the desolate and unwelcoming Sahara. About that time the new Mediterranean people migrated from the east and settled around the shores of the Mediterranean Sea, and it was this people who fostered and cultivated the date palm.

Some have suggested that the date palm evolved within overlapping ranges of the territorial limit for date palm, and the phoenix palm, such as we see in Iran and southern Baluchistan, and that from there it developed as the cultivated species. Others think that the date palm could just as well have developed within its existing limits. Possibly the moisture-needy *P. sylvestris* had a wider range in earlier times. Possibly it followed the now prevailing winds all the way to the Atlantic Ocean, where the Canary Island palm nowadays lives as an isolated species. But when desert conditions took over, it died out and could only then survive in rain-rich India. The only one which could tolerate the new desert climate was the transformed species,



1. Date palms (*Phoenix dactylifera*) in bas relief on walls of terrace temple of Queen Hatshepsut (1515-1484 B.C.), at Deir-El-Bahri, opposite Thebes, Egypt. Photo by Walter H. Hodge.

the common date palm, with its desert-tolerant characteristics.

Men have speculated and wondered, until a report was made recently which

shed new light on the origin of the date palm. There were two famous female Egyptologists who were excavating in the Kharga Oasis. They found a layer from

the earliest stone age, a period estimated to have ended at about 14,000 B.C.

They discovered impressed in that river bed the leaves and seeds of a palm. The seeds were as small as coffee beans, but they had a groove which revealed that it was a palm related to the date palm, *Phoenix*.

It was publicized as the seed of the *Phoenix sylvestris*. But later, in 1952, the authors changed their opinion and thought it possibly was the Central African palm.

Which is right? We don't yet know. But if India's famous wild *P. sylvestris* was found in Africa, then Africa could be the cradle of the date palm as well as Iran-Baluchistan.

But whatever the truth, the fact remains that the Mediterranean race of men was the bearer and the disperser of the date palm culture. The two are one and will likely always be that way.

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## Effects of Several Plant Growth Substances on Height, Flowering, and Lateral Shoot Development of *Chamaedorea seifrizii*

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*Chamaedorea seifrizii* Burret. is one of the most important palm species used in America as an indoor plant. This species grows fairly rapidly and suckers, producing fuller containers during production and withstands the low light intensities of interiors.

Pots containing numerous canes are preferred by buyers, so growers often plant 15 or more seedlings in a 25 cm diameter container. Seed, as well as the labor to transplant numerous seedlings, is a major expense in the production of this palm. It would be desirable to enhance chemically the natural suckering ability of these palms, thereby reducing the number of seedlings required to produce a full, attractive container.

At approximately 100 cm in height, *C. seifrizii* plants mature and begin to flower. These palms usually retain their lower

leaves until they begin to flower and the developing inflorescences in the leaf axils force the abscission of all but the youngest 5 or 6 leaves. Rapid growth, though desirable in commercial palm production, can result in excessively long internodes that further detract from the appearance of the palm. Chemical inhibition of flowering and internode elongation in *C. seifrizii* would be a valuable tool for commercial producers of this palm.

Little work has been done on the effects of various classes of plant growth substances on palm growth parameters. The effects of gibberellic acid (GA) applications on fruit characteristics of date palm (*Phoenix dactylifera* L.) have been reviewed by Mohammed (1985), but no other morphogenetic effects due to GA application were reported for this species. Fisher (1980) applied GA, as well as sev-