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Deformed Date Palm Leaves as Religious Symbols and in Dried Floral Arrangements

The date palm crown is composed of as many as 125 leaves of various ages, with up to 26 new leaves being produced each year (Zaid 2002). Occasionally

a new young leaf may not be able to emerge to grow normally, becoming constricted by older more developed leaves in the crown or among offshoots



Figure 1. Deformed date palm leaf, or possibly an inflorescence, (center, middle ground) on a producing Medjool cultivar tree. Photo: Baruch Glazer.

at the base of the tree. Crowding of the leaf causes abnormal stunted growth, with the leaf curving in on itself rather than extending. These abnormal leaves may grow to about to about 9 inches (23 cm) in length before they die and dry out on the tree. Such plant abnormalities are designated morphologically as vegetal teratology; they are not genetic. Normal leaves on the date palm do not appear to be affected by the presence of deformed leaves; in fact, their occurrence is considered to be normal (Ferry 2005). As a part of periodic pruning of old leaves from producing trees, dead deformed leaves are also removed.

Under certain circumstances, other palm species may produce deformed leaves, but they are not as compacted. These may occur immediately after terminal bud (apical meristem) damage caused by a severe wind storm or nonfatal lightening strike, as a result of insect attack or disease and from boron deficiency. However, in none of these instances, if the plant survives, is the trait persistent. Tissue-cultured palms also may exhibit deformed leaves. Deformed palm leaves and inflorescences caused by crowding have been observed in some species of the genera *Chamaedorea* and *Dypsis*.

What appears to be a deformed leaf (or possibly an inflorescence) in the crown of a producing date palm is shown in Figure 1. A photograph of a dried deformed leaf pruned from a tree is presented in Figure 2. The zigzag pattern created by the compressed leaflets gives this plant part an interesting anatomical and aesthetic appearance. In simple Arabic calligraphy, the w-shaped lines are said to resemble the name of Allah.

Normal date palm leaves are well known to have religious symbolism within the three major world religions; to this may be added the symbolism attributed to deformed date leaves in the Muslim



Figure 2. Dried deformed date palm leaf. Scale is in inches. Photo: Dennis Johnson.

faith. In large measure, because of its multiplicity of useful products fruits, the date palm has been referred to as the



Figure 3. Dried floral arrangement with deformed palm leaf (left). Photo Dennis Johnson

“blessed tree” and the “tree of life.” Because of its unusual and attractive appearance, deformed date palm leaves have been used in dried floral arrangements, as shown in Figure 3. This most ancient of the cultivated palms indeed is unique of all of the palms associated with human civilization.

To my knowledge, in the western languages, this date palm leaf abnormality has not been reported in either scientific or general publications. I hope that this note will stimulate publication of information on this anomaly.

References Cited

Ferry, M. 2005. Abnormality or rejuvenation in date palm from tissue culture? Paper presented at The International Workshop on True-To-Typeness of Date Palm Tissue Culture-Derived Plants. Marrakech, Morocco. 23-25 May 2005. pp. 113-118.

Zaid, A. 2002. Date palm cultivation. FAO, Rome.