Pollen Morphology of Jordanian 
Euphorbiaceae
Spurge Family

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Abstract

The pollen grain morphology of 27 species of Jordanian Euphorbiaceae belonging to 5 genera were studied using light, scanning and transmission electron microscopy. The study was based on many morphological characters of pollen were 6 pollen types have been recognized.

The genus Chrozophora is found to be stenopalynous, whereas Andrachne and Euphorbia are eurypalynous genera.

According to number of apertures, only two types of pollen grains appeared within the investigated species of this family, these are the trizonocolporate and the stephanocolporate pollen types, with the dominance of the trizonocolporate pollen type.

The shape is mostly spheroidal. Prolate and subprolate shapes also occur within the examined pollen grains. The pollen grains are mostly medium in size (polar axis ranges between 22-33.2μm).

Euphorbiaceae pollen grains are mostly tectate, but sometimes they are semitectate. The tectum is supported by infratectal columellae, that stand on an evenly thickened foot layer and an ektexine that is heavily thickened towards colpi margins.
Sculpturing in most of the species is reticulate with lumina that varies in size and shape. The striate, pitted and pilate exines also occur within certain species of the family.

An attempt was also made towards the application of pollen morphology to the taxonomy of Jordanian *Euphorbiaceae* by using clustering analysis techniques and it was found to be very much limited.

It was found that there is a correlation between the pollen types and the general morphological characters of the plant.