

ABSTRACT

The present study is carried out to assess palynological characterization of ethnobotanically important plants of District Kasur, Punjab, Pakistan by using Light Microscope. The morphological characteristics of pollen of 32 plant species, belonging to 20 families are studied. There are 28 dicotyledonous and 04 monocotyledonous plants. The pollen characteristics i.e. shape, size, ornamentation and apertures studied to characterized these plants. Most of the plant's pollen are circular as in *Cannabis sativa*, *Ocimum basilicum* L. Oblate spheroidal is in *Amaranthus viridis* L., *Parthenium hysterophorus*, *Brassica nigra*, *Convolvulus arvensis* Linn, *Ricinus communis*, *Fumaria officinalis*, *Acacia nilotica*, *Lacier Arietinum* Linn, *Nasturtium officinale*, *Stellaria media* Linn, *Melilotus indicus* Linn, *Physalis angulate*. Sub prolate Pollen is present in *Peganum harmala*, *Euphorbia hirta*, *Oxalis corniculata*. Prolate Spheroidal were found in *Anagallis arvensis* Linn. , *Ranunculus sceleratus* Linn. The smallest pollen is of *Oxalis corniculata* whose polar length is 5.834 μm and equatorial diameter is 6.334 μm . The largest pollen is of *Lantana camara* whose polar length is 19.334 μm and equatorial diameter is 18.334 μm . The P/E ratio, equatorial diameter and polar length were also determined in μm . The range of polar length varies from 5.834-19.334 μm and equatorial diameter varies from 6-18.334 μm . Major pollen types have been identified on the basis of apertures and tectum. The apertures of the studied plant's pollen vary greatly, including porate, colpate, colpate, tricolpate, tricolpate, pantoporate apertures, and so on. Different types of tectum are studied, including reticulate, scabrate, echinate, verrucate, psilate, spinate, and micro reticulate. Pollen is classified as porate, colpate, or colpate based on aperture and tectum types. The majority of the plants collected are herbaceous, but some are shrubby. All of the plants are either annual or perennial in nature.