Study of anatomical structure of vegetative organs and developmental stages of generative organs of \textit{Asparagus officinalis} L.

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\textbf{Abstract}

\textit{Asparagus officinalis} L. belongs to the Asparagaceae family and it is monocotyledon. Its different species are used as anticancer, antifunji and anti inflammation. It is cultivated for medicinal, ornamentation, and food purposes. Target of this study focuses on the anatomical structure of the vegetative organs and the flower developmental stage of \textit{Asparagus officinalis} L. that collected from Dezful City. To study the vegetative organs including root, stem, leaf, and generative organs, vegetative and generative samples collected in different stages of development and investigated by the conventional methods of cellular - histology and the optical microscope in biotechnology laboratory of the University of Science and Researches, in 1395. Observation of vegetative organ structures showed that roots Vascular Cambium include pericycle, vascular bundles (Xylem, phloem) and pith. Central cylinder of stem, is an actactostel, and Vascular Bundles are scattered irregularly and are the uni-strain type. The ovules of this plant are anatropous and its embryo sac is Polygonum type. The pollen of this plant is monosulcate and the ornamentation of its exine is poriferous. The results of this study showed that the anatomical structure of the vegetative organs and the developmental stages of pollen and pistil of this plant is similar to the anatomical and developmental structure of the monocotyledons.

\textbf{Keywords:} monocotyledon , ovule, pollen , Vascular Cambium.