

The pollen quality and microgametophyte structure in Antarctic populations of *Deschampsia antarctica* E.Desv. was investigated. It was found that, the microsporogenesis occur without disturbances despite the harsh living conditions of the studied plants. At the same time many mature pollen grains were degenerated or were characterized by cytoplasm plasmolysis. Normal pollen grains were less than 10% in some plants. High frequency of mature pollen degeneration may be a factor that reduces seed production.