

MORPHOLOGICAL CHARACTERIZATION AND THE GERMINATING POTENTIAL OF *CORONILLA VARIA* L. POLLEN

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Abstract

This scientific paper presented the morphological characterization and characteristics of pollen germination process in *Coronilla varia* L. For morphological characterization have made references on the form, ornamentation exin, size and number of germinative pores/pollen grain. These morphological features are an important tool for diagnosis of plant species. Also we present the features of the pollen germination process of *Coronilla varia* L. Biological material was represented by two population of samples taken from two stationary placed in the surroundings of the Ceahlău National Park: an unpolluted control stationary called Potoci village and a polluted stationary called Tașca-marshalling yard. In this regard have been made of pollen germination tests "in vitro" in wet rooms "van Tieghem". Nutritive mediums that served for pollen grain inoculation had different glucide concentrations. The results of experiment presents the minimum, optimum and maximum concentration of sucrose in nutrient media on the pollen of *Coronilla varia* germinate. Determination of the percentage of pollen germinated from time to time (after 1 hour, 24 hours, 48 hours, 72 hours, 96 hours and 120 hours since pollen inoculation in nutritive mediums) allowed determining the pollen germination process dynamics in *Coronilla varia*. The proportions of germinated pollen were surprisingly high in mediums with deficiency glucides elements and glucide concentrated ones, thereby demonstrating the ability to adapt to the wild species. The results can be correlated with ecological plasticity of *Coronilla varia* L. Pollen germination potential in *Coronilla varia* was not influenced by polluted environment, showing that major genes controlled this trait. Therefore, it is very well genetically consolidated. Also, the pollen morphological traits were not influenced by polluted environment.

Key words: *Coronilla varia*, pollen grain, pollen tube, germinating potential, medium

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