DETERMINATION OF PROTEIN CONTENTS IN DIFFERENT ORGANS OF COLCHICUM VARIANS

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Colchicum L., that has an uncommon life cycle, is a monocot geophyte [1]. Its life cycle containing of two growing phases: autumnal period followed by winter season and photosynthetically active period being expected to result in senescence and latency. After the starch, protein content characterized as the second vital storage compound in corms [2-4]. Soluble and insoluble protein contents of the seed, roots, mother and daughter corms, leaf and stem of spring flowering species of genus Colchicum (C. varians) Freyn & Bornm in both quantity and quality aspects were studied. Results showed that the seed had the largest soluble protein content since roots had the least amount of soluble protein. Interestingly, the authors determined a lower level of insoluble proteins than soluble proteins in all examined organs except stem and leaf. These results confirm that the function of total protein in any organs depends on the stages of the plant lives. Because of the active phase of plant life and flowering and photosynthesis is ongoing, the amount of total protein in the mother corm and roots is lower than the other organs [5, 6].

References