Abstract

Senescence is a natural process, which is a part of plant developmental programme. However, the onset of senescence can be greatly influenced by external conditions. An important part of plant senescence is a senescence of leaves manifested by chloroplasts breakdown. That is connected to mobilization of nitrogen contained in proteins, which provide their function. However, the correct timing of natural senescence is substantive for the plant. The initiation as well as the process of natural senescence is influenced by several factors. Senescence is in varying degrees controlled by phytohormones, regulation factors and it is also driven by epigeneticall processes. Leaf senescence can be caused by several exogenous (light conditions, temperature, water and mineral availability, pathogen attack) and internal (carbohydrate levels, hormones, age, developmental stage) conditions. As well as many other developmental stages, senescence is greatly regulated by phytohormones. Ethylene, abscisic acid, salicyl acid and methyljasmonate support leaf aging, on contrary cytokinins delay senescence associated processes. Studying of cytokinin with chlorophyll analysis is an important part of every study of senescence. This work summarizes literature information of regulation of senescence with an accent on the role of cytokinins in driving of this process.