

## **Abstract**

The aim of this study was to summarize factors that induce sporulation of anamorph and fruiting body formation in ascomycetous fungi. These factors are, depending on a species, light, water, air and nutrients availability, presence of various chemical compounds and osmolarity. Specific media and cultivation conditions used for sporulation induction are reviewed. I concentrated on mating type (MAT) genes and genes involved in the process of conidiation in the chapter about genetic background of fructification and sporulation.

Key words: sporulation, fruiting body formation, MAT genes, mating factors, anamorph, teleomorph, Ascomycota, homothallism, heterothallism.