

Relationship between morphology and spore production of *Verticillium lecanii* in a 2.5L stirred-tank reactor

이진영, 김승욱*
고려대학교 화공생명공학과
(kimsu@korea.ac.kr*)

It was investigated that the spore production of *Verticillium lecanii* CS-625 was associated with its morphological characteristics (hyphal length/width, spore length/width, and the number of tips). At 350 rpm and 1.0 vvm, maximum spore production (2.0×10^9 spores/ml) and productivity (25.0×10^9 spores/l·hr) were obtained at 144 hr and 84 hr respectively, in a 2.5 L stirred-tank reactor. In morphological characteristics, the number of tips and the mean spore length were affected by the agitation speed. At 350 rpm, the maximum number of tips (4.8×10^8 tips/ml at 72-hr cultivation) and the shortest mean spore length (2.8 μm after 60 hr) were obtained. From these results, we found that the number of tips and the mean spore length were closely related to spore production and productivity.