

Effect of oxygen condition on mycelial growth and anti-oxidant production from *Cordyceps militaris*

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Cordyceps militaris was cultivated in submerged condition to produce various bioactive compounds. In this study, oxygen supply conditions such as saturated and micro-aerobic were designed to investigate the mycelial growth and anti-oxidant production from *C. militaris*. Mycelial growth was significantly increased after 3 days under oxygen saturated condition. The strain of *C. militaris* (KYL02) was used with the designed conditions and the mycelial morphologies were observed by photomicrograph. As a result, a large numbers of mycelial morphology was observed in the third day of the oxygen saturated condition. The anti-oxidant activities were measured by free radical scavenging activity and polyphenol concentrations. *C. militaris* KYL02 was shown about 20% enhanced anti-oxidant activity under oxygen saturated condition.