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Cultivation Method of *Cordyceps militaris* Mycelium Using *Tenebrio molitor* Larvae to Produce High Content Cordycepin

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The Food and Agriculture Organization (FAO) has been estimating the potential of insects as human food and animal feed for convincing food security since 2010. On account of this reason, *Tenebrio molitor* larvae have been gaining considerable attention as an alternative protein source for various foods. However, consumers do not prefer them because of their disgusting appearance. Therefore, it is necessary to develop a method that improve their appearance as to lead to *T. molitor* larvae consumption. In this study, *T. molitor* larvae which is prepared for optimally sampling conditions (shade drying, 30 min boiling after hot air drying, 30 min steaming after hot air drying), were cultured with *Cordyceps militaris* mycelia, and measured growth and density of mycelial. Also analyzed the cordycepin and adenosine content compared with commercial *C. militaris*. As a result, *T. molitor* larvae cultivated with *C. militaris* mycelia showed the highest cordycepin content (13.75 mg/g) was observed in optimal sampling conditions (shade drying). Therefore, we report that the methods which *T. molitor* larvae cultivated with *C. militaris* mycelia not only improve their appearance but also increase cordycepin content, which can be contributed to lead *T. molitor* larvae consumption.

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