Culture Characteristics *in vitro* of Entomopathogenic Fungus *Entomophaga aulicae* Occurred *Aedia leucomelas* Larvae

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Entomophaga aulicae is a naturally occurring fungal pathogen of moth larvae. Since 2002, that has been occurred at sweet potato fields in Jeollabuk-do, therefore, has affected occurrence density of *Aedia leucomelas. E. aulicae* included in the order Entomophthorales (Zygomycotina) has reported that they cause insect epizootics and play an important role in natural control of insect pests, however, culture *in vitro* is fastidious. The purposes of this study were to examine the effects of *E. aulicae* growth patterns in vitro and pathogenicity of conidia and protoplast cultured.

On the solid media, conidia discharge and mycelium growth abilities is suitable on the saubouraud dextrose agar with 1% yeast (SDAY) and saubouraud egg yolk-milk agar (SEMA). As temperature treatments on the SEMA, mycelium growth of *E. aulicae* at 20℃ and 24℃ grew faster, and the number of satellite mycelia at 20℃ were the most.

In liquid media, protoplast density was increased in Grace's insect tissue culture media, however, in Grace's insect tissue culture media supplemented with fetal bovine serum (FBS), protoplast production was more faster than in Grace's insect tissue culture media without FBS, and was the fastest in the media supplemented with 5.0% FBS.

We confirmed infection of *E. aulicae* when conidia on solid media and protoplasts in liquid media were inoculated in the *Aedia leucomelas* larvae.