

D-39 Parasitoid Wasps, *Apanteles glomeratus*, Destroy the Immune Response of Its Host Cabbage Worm, *Artogeia rapae*, with Virus-like Particles.

한성식, 이민호, 윤태유*, 이진수
고려대학교 농생물학과

The parasitoid wasps of *Artogeia rapae* were identified as four species : *Apanteles glomeratus*, *Teromalus puparum*, *Euripoma sp.*, *Teprostichus sp.*. The parasitoid wasps oviposited injecting their ovipositor into the lateral intersegmental fold of the host's abdomen. The electron microscopic research was focused on the species of *A. glomeratus*. Virus-like particles(VLP) were found in the calyx cells and calyx lumen of *A. glomeratus* and also found in the granulocytes and plasmatocytes of *A. rapae* parasitized by *A. glomeratus*. The VLP were mainly found in the cytoplasm of the plasmatocytes. We observed that the capsul formation of *A. rapae* was inhibited by calyx fluids of *A. glomeratus*. Therefore it could be thought that the VLP was the principle factor of the parasitism between *A. rapae* and *A. glomeratus*. The passage of virus through generations in parasitoids are not characterized but it is expected to be found in near future.

D-40 Optimization of Dissociation Conditions for Cell Culture of Cockroach Embryo and Fat Body

한성식, 서영록, 박상찬, 임창용*, 이진수
고려대학교 농생물학과

Procedures of primary culture were developed in preparation for cell line establishment from embryo and fat body of *Periplaneta americana*. For the optimizations of embryo cell culture conditions, the dissociation steps were improved and 5+4 medium was chosen as culture media. The trypsin solution were maximally effective at 0.1% for embryos late in embryogenesis as indicated by the higher density and viability of trypsinized dissociated cells at this concentration. In the early stages of primary culture, some melanized cells were observed. For the optimization of fat body culture conditions, primary explant culture was performed and L-15:TNM-FH:BME(5:4:1)complex media was chosen as culturing media. Cell type were shown variously.