

**Seasonal Fluctuation of Egg Mortality of the Bean Bug,
Riptortus clavatus (Hemiptera: Alydidae) in Soybean Fields
and Developmental Characteristics of an Egg Parasitoid,
Gryon sp. (Hymenoptera: Scelionidae)
as its Main Factor**

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Eggs of the bean bug, *Riptortus clavatus* were collected to survey the egg mortality and its killing factors at the reproductive stages of soybean in soybean fields of Gyeonggi-do, Chungcheongnam-do and Chungcheongbuk-do in 2003.

Mortality of eggs was low at the early August that is the early pod-elongation stage in most fields, after then the mortality sharply increased more than 60% at the periods of the pod-filling and the pod-ripening stage. Eggs were mainly parasitized by an egg parasitoid, *Gryon* sp. (Scelionidae), and the average percentage of egg mortality by *Gryon* sp. during the surveyed period in all fields was $43.7 \pm 22.9\%$. The observed data indicated that *Gryon* sp. is the most fatal killing factor against *R. clavatus* eggs in the surveyed area, and it coincided with the results (the high parasitic rates, 58 and 47%, by *Gryon* sp., respectively) surveyed in soybean fields of Suwon-si, Gyeonggi-do in 1998 and 2001.

In an indoor rearing (16L:8D photoperiod, 29.6 ± 1.2 °C) of *R. clavatus* eggs artificially-inoculated by *Gryon* sp., the developmental period of *Gryon* sp. from oviposition to adult emergence was 13.0 ± 1.0 days for females and 12.4 ± 0.4 days for males, respectively. *Gryon* sp. was emerged from one egg of *R. clavatus* as solitary parasitism, and the sex ratio was about 6:4 for female:male. The egg parasitoid could oviposit newly laid eggs to five-days old eggs of *R. clavatus*.