

# Damage Analysis and Ecological Characters on the Red Flour Beetle, *Tribolium castaneum* (Coleoptera: Tenebrionidae)

**Kyu-chin Kim and Kang-Ryong Park**

Depart. of Agricultural Biology, Chonnam National University

Red flour beetle has three generation a year. Its peak period appeared in from mid-May to early-June, mid to late-July and early to late-September. But the maximum peak period was the third generation

Morphological characters of red flour beetle were  $0.6 \pm 0.1$ ,  $5.6 \pm 0.5$ ,  $3.8 \pm 0.2$  mm length with eggs, larva and pupa, respectively. Also female and male of adults were  $4.0 \pm 0.1$ ,  $3.8 \pm 0.1$  mm. Each rearing periods was  $6.0 \pm 1$ ,  $34 \pm 7.0$ ,  $9.0 \pm 3.0$ ,  $45 \pm 10$ ,  $65 \pm 15$  days with eggs, larva, pupa and adults of female and male. Overwintering adults were  $210 \pm 15$ ,  $332 \pm 15$  days with female and male.

The host plants of red flour beetle were surveyed of 10 cereals, 1 bean, 3 farina, 7 processed goods, 2 herbs. Especially, the degree of feeding preference showed high in brown rice, barley and corn flour.

Damage degrees on red flour beetle showed brown rice > polished rice > rough rice in rice. In barley, barley > pressed barley  $\cong$  polished barley > naked barley. Damaged parts were showed by embryo parts > awn parts > back and front parts in brown rice.