

# **Establishment of the Successive Rearing Method of Cabbage Butterfly, *Pieris rapae* in Room**

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The indoor, year-round rearing method of cabbage butterfly was studied by performing following experiments. The hatchability of the eggs oviposited by host-plant fed mother was 89.2%. The period between oviposition and hatching was 3.9 days. The larval period was 18.1 days in high temperature under long day condition(25°C, 16L · 8D), showing 97.8% pupal ratio and 97.8% emergence rate. However, in low temperature under short day condition(21°C, 10L · 14D), the larval period was 23.6 days and pupal ratio was 70%. Those pupae were all for hibernation.

The oviposition preference experiment on different hosts(chinese leaf, cabbage, turnip, kale) showed that hot-water extract was preferred over methanol extract or pressed extract. The host preference showed that chinese leaf was less preferred than the other three. The artificial ovipositing kit was constructed for the experiment.

The result showed that the low-temperature storage of the eggs was possible at the given condition of 5°C storage, 48 hours after oviposition. Those eggs showed 70% hatchability after 7 days of storage. Also, same experiment was done on non-hibernation pupae. Those stored at 5~15°C showed 85% emergence rate after 30 days of storage. However, pupae stored at 5°C showed longer storage period and higher emergence rate.

The systematic, indoor year-round rearing method of cabbage butterfly was completed, based on the above experiments.