

Production of the Silkworm Larval Vegetable Wasp and  
Plant Worm by Injection Inoculation of *Paecilomyces*  
*japonica* against the 5th Instar Larvae  
in the Silkworm, *Bombyx mori*

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A study on the production of the silkworm larval vegetable wasp and plant worm was carried out by injection inoculation of *Paecilomyces japonica* against the fifth instar larvae in the silkworm, *Bombyx mori*. The normal larval growth during the 5th instar was greatly prevented or the larvae was dead shortly by the injection of the  $3 \times 10^8$  *P. japonica* spores per a larva of the fifth instar, and so the pupation did not occur during the larval to pupal metamorphic stage. The average survival periods after the injection of 30 $\mu$ l, 50 $\mu$ l, 70 $\mu$ l of  $10^8$ /ml spores per a larva ranged from 2 to 3 days in the corresponding experimental plots. The duration required to formation of endosclerotium varied according to the developmental stages and the inoculation amount injected. The duration required to fruiting body formation after initial inoculation ranged from 16 days to 25 days, also it varied according to the injection timing during the fifth instar larval development. Infection ratios of *P. japonica* to the fifth instar larvae were 90~100% with the exception of injection inoculation on the day 1 larvae of the fifth instar. The initial body weight before inoculation on the fifth instar larvae decreased to 44~72% until fruiting body formation was completed. The mid-gut and silk gland in the fifth instar larval body were not attacked with *P. japonica* even though the larvae were infected with the fungi by injection.