# Penyimpanan Suhu Rendah Berbagai Fase Hidup Parasitoid: Pengaruhnya terhadap Parasitisasi dan Kebugaran *Trichogrammatoidea armigera* Nagaraja (Hymenoptera: Trichogrammatidae)

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**ABSTRACT**

**The effects of low temperatures on the fitness of *Trichogrammatoidea armigera* Nagaraja (Hymenoptera: Trichogrammatidae).** *T. armigera* is one of the potential egg parasitoids. The aim of this research was to study the effects of low temperatures ( 9ºC and 15ºC) on the fitness of *T. armigera*. The design of the experiments is a factorial design with two factors (temperature and age of parasitoid), with 10 replicates. Fitness were measured based on the survival, fertility, size, sex ratio, lifespan and fecundity. Result showed that the emergence of *T. armigera* was postponed by 2-5 days under low temperatures. Temperatures had a more significant effect than age of parasitoid. The postponement of adult emergence is very useful in regard to field application schedules. Percentage of adults emergence, sex ratio, egg productivity, fecundity tended to decrease under low temperatures, the length of female adult wings varied in each treatment and it tended to be shorter in 9ºC, while the width of female adult heads was almost similar in all treatment except in untreated control. These characters are very important in determining the fitness of the parasitoid in the field.

**KEY WORDS:** *Trichogrammatoidea armigera,* egg parasitoid, temperature, fitness, age.