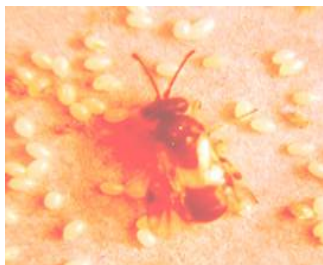


**Bio control:: Mass production::Parasitoids****Mass production of *Chelonus blackburnii*****Introduction**

- *C. blackburnii* is introduced from Hawaii. A parthenogenetic egg-larval parasitoid, *C. blackburnii* has a fairly wide host range but in India the common meal moth *Corcyra cephalonica* and potato tuber moth *Phthorimaea operculella* have often been used for multiplication of this parasitoid.
- It could also be multiplied successfully on *Spodoptera exigua*. *C. blackburnii* has been used for the biological suppression of *P. operculella*, *Earias vitella*, *Pectinophora gossypiella* and *Helicoverpa armigera* on cotton and other host plants in many states.
- It is becoming an important component of IPM systems on potato, cotton, etc.,

Production procedure

- A set of 100, 0-24 hr old eggs of *Corcyra* (not exposed to UV) are pasted to 5 x 5 cm card. This card containing eggs is exposed to 30 *C. blackburnii* adults in a 1.5 l container.
- The plastic container has windows with plastic mesh for aeration. Two cotton swabs, one soaked in 10% honey solution and the other in drinking water are also placed inside from the side opening which is closed tightly with a cloth covered cotton plug.
- The egg card after exposing to *C. blackburnii* for 24 hrs is removed and placed on 500 g sterilized cumbu medium. In 30 days time, adults start emerging from the cocoons formed in the cumbu medium after completing development on *Corcyra* larvae. The adults live for 25 days and their fecundity is about 400 eggs.
- The parasitoid could also be reared on potato tuber moth (PTM). A set of 1500 egg of laid on a cloth are stapled to a card.
- This card containing 0-24 hr old eggs is exposed to 30 *C. blackburnii* adults. The plastic container (14 cm x 11 cm) is converted into *C. blackburnii* rearing unit by cutting windows and fixing plastic mesh aeration.
- Two cotton swabs, one soaked in 50% honey solution and the other in drinking water are also placed inside from the side opening which is closed tightly with a cloth covered cotton plug.
- The PTM egg card after exposing to *C. blackburnii* for 24 hrs is removed and placed on punctured potatoes. This provides more entry points for PTM larvae and kept in a similar plastic container as described for exposure to *C. blackburnii*.
- The bottom of this container is lined with sterilized sand. In 25-27 days time, adults start emerging from the cocoons formed in sand at the bottom of the cage or sometimes inside potatoes after completing development on potatoes.
- The adults live for 23-31 days and their fecundity is about 288-390. Parasitoid host ratio of 1:50 should be maintained and the fresh lot of eggs provided every day.