



## Cooperative Extension Service

College of Tropical Agriculture and Human Resources  
University of Hawai'i at Mānoa

### Frequently Asked Questions about *Secusio extensa* release program:

Will the release cages be provided?

- No those that want the larvae will have to build their own field cages. We will provide you with information and instructions about the field cages and how they can be built.

How big the cages have to be?

- The cage size will be dependent on the density of fireweed in the intended area for the cages.
- Cages can range from the following sizes and may be adjusted:
  - 4'Lx3'Wx2'H
  - 5'w x 5'w x 2'h
  - 4'w x 4'l x 2'h
  - Take into consideration the wind patterns for the area when deciding on the height of the cage. Taller cages will have the tendency to catch more wind and cause damage to the screen.
- You need to have at least 5 adult plants (~25cm in height) for every 50 larvae placed in the cages. We suggest no more than 50 larvae per cage to help prevent disease of the larvae.

#### Field Cage Example: Dimensions - 4'Lx3'Wx2'H



What kind of screen should be used and the size of the holes?

- We recommend using a household insect screen. Additional reinforcement may be needed in windy areas.



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When will they be able to get the caterpillars?

- Larvae are dispersed at the 3<sup>rd</sup> instar age. Please check the website for current availability of larvae for your area.

What is the lifespan of the moth?

- Biology of *Secusio extensa*
  - Insect development is
    - Dependent upon temperature, and may vary based in the temperatures of your location. ie: cooler temp = longer development time
  - Number of caterpillar stages (instars): 5 stages ( approx. 4 days between instars)
    - 1<sup>st</sup> instar: 0.16 inches
    - 2<sup>nd</sup> instar: almost ¼ inches
    - 3<sup>rd</sup> instar: 2/5 of an inch
    - 4<sup>th</sup> instar: little more than ½ an inch
    - 5<sup>th</sup> instar: about an inch
  - Number of days from egg to pupae: 28 days at 82<sup>o</sup> C
  - Number of days from pupae to adult: 13 days at 82<sup>o</sup> C
  - Adult life span: 10 days

When do the cages need to be moved from the original site?

- Field cages should stay in same location until adult moths have emerged, mated and laid eggs.
- Number of days from egg to pupae: 28 days at 82<sup>o</sup> C
- Number of days from pupae to adult: 13 days at 82<sup>o</sup> C
- Adults will mate in 2-3 days after emergence and then begin to lay eggs.
- Adult life span: 10 days

For more information regarding the host range testing that was done with *secusio extensa* go to <http://onlinelibrary.wiley.com/doi/10.1111/j.1439-0418.2010.01536.x/abstract>

For any other questions regarding *secusio extensa* and the release program you may call the UH Mānoa Cooperative Extension Office in Kamuela at 808-887-6183 or email [thornem@hawaii.edu](mailto:thornem@hawaii.edu).