DipTerra Overview: The life cycle of the Black Soldier Fly
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The Black Soldier Fly (*Hermetia illucens*) from the family *Stratiomyidae* is found through the Norther and Southern hemispheres, most in warm climates or during the summer, between approximately the equator and the 49th parallel.

Adult flies have a wasp-like appearance, are short lived (3-5 days), do not feed in the adult stage and therefore do not spread diseases. There sole purpose on emerging from their puparia is propagation of new generations of flies.

Eggs are very small (~2 micrograms) and are deposited by female flies in clusters called clutches containing 300 to 500 eggs. After a couple of days to one week in warm and moist conditions small larvae hatch and start feeding.

BSF larvae (BSFL) are very small and white (less than one mm long), grow fast. In about ~15 days (depending on the food quality and temperature) they grow to be about 100-300 mg in weight. During this interval the outer exoskeleton of the larvae appears white-yellow or cream in colored. The larvae feed on organic-rich biodegradable materials including compost, garbage, manure, animal carcasses, sewage debris, leachates produced during the fermentation of fruits and vegetables, etc. During the last stage (6th instar) the larvae take on a brown-black color as they enter the prepupal stage in their life cycle at which point they stop feeding and begin exiting from the waste on which they have fed up to this point in their life cycle.

Pupae become progressively immobile and generally take on a darker ashen color. To pupate larvae crawl completely away from food and hide in a dark place where they metamorphose into adults. Metamorphosis takes a couple of weeks to months (depending on the temperature). Adults emerge by breaking out of and crawling free of the puparium shell that protected them during metamorphosis and start the cycle again.