

# Bean Beetles

## A CAROLINA™ CareSheet

### Immediate Care and Handling

The bean beetle, *Callosobrauchus maculatus*, is a tropical to subtropical insect with a complete life cycle consisting of egg, larva (grub), pupa, and adult beetle. Adult females of this beetle lay eggs on dry, stored beans, especially mung beans and cowpeas. Since they are agricultural pests, they should never be released.

### Habitat Setup and Maintenance

You will receive a culture containing enough beans to maintain itself for several weeks with little care. Leave the lid on the culture unless students need access to beetles to set up experiments. If you wish to maintain a culture, you will need petri dishes or cups with lids. If using cups, use a pin to punch a few holes in the lids for ventilation. Add enough mung beans to cover the bottom of each container in a single layer. Add at least 1 male and 1 female to each container and put on the lid.

Dispose of all beetles, beans with eggs, infested beans, and spent beans by placing them in a secure self-sealing bag and freezing for at least 2 weeks. After that, dispose of the unopened bag in the trash.

### FAQs

#### ***How large are bean beetles?***

Adults have a body length of about 3 mm (1/8").

#### ***How long is the life cycle?***

Eggs are deposited on the surface of beans and hatch in 5 to 20 days, depending upon ambient temperature. The larva has chewing mouthparts and makes its way into the bean where it feeds and matures. Temperature strongly affects generation time: At room temperature, adults may require 7 weeks for emergence. In an incubator at 30° C, adults may emerge in 3 to 4 weeks. The adult stage is brief, lasting only 10 days to 2 weeks. The adults do not need food.

***Is there anything unusual about the life cycle?***

There are 2 morphs or body types of the bean beetle: a sedentary morph, which is contained in the cultures we ship, and a dispersal morph. The beetle remains in the sedentary morph as long as it has beans available for infesting and the population does not become too dense. This morph of the beetle seldom flies. At higher population densities, the dispersal morph begins to emerge. As the name implies, this morph tends to fly away or disperse. Most of these dispersing beetles die, but a lucky few may find a new supply of beans to infest, and the sedentary morph will predominate again.

**Problems?** We hope not, but if so contact us. We want you to have a good experience.

**Orders and replacements:** 1-800-334-5551, then select Customer Service.

**Technical Support and Questions:** [caresheets@carolina.com](mailto:caresheets@carolina.com)



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