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Alfalfa Leafcutter Bees

Leafcutter Bees in Prepupal



Day 1



Day 12-13

Native Leafcutter
Bees (14-15)



Day 16-17



Day 18-19 Males

Identification markings: Green Eyes, two white spots on rear, Round Bottom. brighter in color and smaller than the female.



Day 22 Females

Identification markings: Brown Eyes, White Brush under abdomen, Pointed Bottom. Dark to light brown in color.

Alfalfa Leafcutter Bees

Bee Development and Emergence Patterns

- Day 1:** Cocoons are at 85° F. All are in the prepupal stage.
- Day 3:** Parasites undergo their final molt into the pupal stage.
- Day 7:** Place dichlorvos into the incubator at the recommended rate of ¼strip per 1000 cu. Ft. If the incubator is only partially full, use lower rate.
- Day 8:** Leafcutter bees begin to undergo their final molt into the pupae stage. They are very sensitive to temperature fluctuations so maintain an even temperature - no cooling and holding at this time.
- Day 8-9:** First Pteromalus and Tetrastichus parasites begin to emerge
- Day 9-12:** Pteromalus continue to emerge
- Day 10:** Leafcutter bee pupae begin to show some eye color (the pink eye stage).
- Day 12:** Leafcutter bee pupae continue to darken in eye color in the eyes over the back.
- Day 13:** Remove the dichlorvos strips. Actively air the incubator thoroughly and completely, using exhaust fan and circulating fans, for 24-48 hours. Maintain the 85-degree temperature if possible and desirable.
- Day 14-15:** Leafcutter bee continues to darken in color and Native leafcutter bees emerge.
- Day 14-22:** During this time period incubation may be slowed if weather or bloom is not optimal. The bee board temperature can be lowered to 50-60 degrees F for up to two weeks. This virtually stops development resumes until the hatch is complete.
- Day 16:** Early hatching pupae (mainly males) are completely dark in color; later hatcher's (mainly females are darkening.
- Day 18-19:** Males begin to emerge. Remember that the bees are very susceptible to high temperatures.
- Day 21-22:** Females begin to emerge. Male emergence peaks. Second generation Pteromalus begin to emerge.
- Day 23-24:** Female emergence peaks.
- Day 28:** Hatch is virtually complete at 85° F.

**For Additional Information
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Bee Shelters
Nampa, Idaho



*Photo's Courtesy of
Dr. Donald Miller*