Drone Brood Removal
For Varroa Mite Control

Drone brood removal (DBR) is a proactive mite management tool that you should use before mites become a problem. It is a common springtime practice in parts of Europe. Mites are >10x more likely to invade drone cells than worker cells, and produce more offspring in drone cells\(^1,2\), so adding and removing a drone frame (or two) is an efficient way to bait, trap and destroy mites. **Plan on removing drone brood regularly in the spring and early summer.** In mid or late summer, when drone production slows, simply remove the drone frames, or move them to the outer edge of the hive, where the bees will fill them with nectar.

Studies show that DBR can be an effective way to reduce mite build-up. However, it is not a silver bullet, and should be used as part of a comprehensive integrated pest management (IPM) strategy: check your mite levels using an alcohol wash once a month, and treat chemically when mites are prevalent. To learn more about IPM visit [ag.umass.edu/resources/pollinators/varroa](ag.umass.edu/resources/pollinators/varroa).

### HOW TO REMOVE DRONE BROOD (the basics):

**START HERE**

Insert 1 or 2 drone frames at edge of brood nest (position 3 or 7)

A. Cut out brood

B. Freeze frame and replace with empty or previously frozen frame*

Leave until brood is capped (2-3 weeks)

### TIPS

- Works best with strong hives that produce copious drones
- Use a calendar and keep good records!

### A. Cutting Version\(^3\)

**Commonly used in Europe in the spring**

**PROS:** No equipment to carry; Logistically easy

**CONS:** Bees need to re-build wax. Can only use in spring and early summer.

*Frames only need to thaw for a few hours before placing in hive

Wait 2-3 weeks (until brood is capped)

Cut out brood and discard or feed to chickens

---

### B. Freezing Version\(^4\)

**PROS:** Wax is not destroyed; Can use in mid-summer

**CONS:** Requires freezer space. Logistics of swapping frames between freezer and field adds an extra step

Wait 2-3 weeks (until brood is capped)

Remove capped frame from hive and replace with an empty or previously frozen frame*

*Place capped frame in freezer for at least 48hrs

---

May 2020. Text and images by Hannah Whitehead, Honey Bee Extension Educator (hwhitehead@umass.edu). Produced by the University of Massachusetts, funded by USDA Specialty Crop Block Grant Program 2019 AM190100XXXXG044 through the Massachusetts Department of Agricultural Resources (MDAR).

References Cited