

# Extracting and Cleaning Orchard Mason Bee Cocoons For Late Winter, Early Spring

by John Holbrook

- 1) Disassemble multiple plate bee blocks. (Or, with parchment paper tubes, pull tubes and set aside).
- 2) Using an instrument instead of your fingers, gently remove bees from plate grooves w/ instrument. (e.g. a cheap soft metal screw driver with the shaft cut off at an angle and edges smoothed of burrs; or a wooden dowel 1/4" or 5/16" cut at an angle, edges sanded smooth).
- 3) Gently pick bee cocoons with tweezers, set in bowl or plastic container .
- 4) Set a clean 2-gallon bucket in sink, fill with clean water; pour in cocoons. Let soak for 20 minutes stirring occasionally
- 5) Remove cocoons from muddy water and place in sieve, not colander, as cocoons may slip through. Set aside and rinse in mild water, swishing cocoons around inside sieve. Repeat several times.
- 6) Throw muddy water on lawn or in garden, not down drain, as mud could settle in trap. Rinse bucket well and fill with fresh water.
- 7) To kill pollen mites that may still be clinging to skin of cocoons, add add ½ cap (not cup) of bleach, stirring to mix well. Add cocoons to bucket; stir gently and leave in bleach solution for 10 minutes.
- 8) Remove cocoons, placing in sieve, and rinse again in fresh water, swishing cocoons.
- 9) Place waxed paper or paper towels on cookie sheet; pour cocoons across cookie sheet, spreading them out. Place somewhere to dry or use a small fan on low, moving cocoons now and then, to dry all sides.
- 10) To 'candle' the cocoons, I placed my kitchen cutting-board over my bath sink. I inverted a large-lens camping flashlight on top of the board, covered the bright center spot of the light with tape-so I could look around its glare.

I sprinkled some dry cocoons over the lens, turned on the flashlight and turned off the bath light using tweezers, then observed each cocoon as the light passed through it.

- If it appeared empty, or I could detect a dead or under-developed larvae, or a parasite, I picked the cocoon out and set it in the "throw" container.
- Cocoons which were opaque (the large female cocoons appeared this way most often), or in which I could detect parts of a mason bee, especially its legs, I picked those out and placed in a 'keeper' container.

This is a lengthy process but it has to be done.

- 11) Separate male and female cocoons, place in small cardboard boxes with small holes in lid for air. Store in fridge at 36-39 degrees until ready to use or distribute.