

SCREEN BOTTOM BOARDS

<u>Screen Bottom Board Efficacy and Maintenance Improvement for Those Who Already Have Them:</u>

We have found that using a MiteGone pad in a tray placed under a screen of a screened bottom board or Modified std. bottom board see page3, yields positive results as it eliminates some common problems beekeepers have found:

- Neglected drop board trays are heaven for wax moths and beetles (larva can pupa in debris).
- Maintaining sticky boards is a lot of frequent work.
- When the sticky boards are dry the mites climb back up into the hive.
- Open bottoms allow the mites to climb back up, and supposedly in the winter help the mite to survive because of colder temperatures in the hive.
- If you are in doubt about "how mobile Varroa is," read Jerry Hayes's classroom article in the April 2004 edition of American Bee Journal, page 273.

Theory and Other Benefits of Using a Tray:

Put one or two 5" MiteGone pad soaked in acid in your sealed tray or on a common cafeteria "food tray" (14" x 18" x ¾") under a screen of the screened bottom board. This creates a pool of LETHAL acid fumes in that tray. This pool of acid will do the following:

- Deter and eliminate the wax moth and possibly be enough to treat the tracheal mite.
- It will kill any Varroa mites dropping onto the tray; none will escape or climb back into the hive.
- The amount of acid emitted cannot cause an overdose or contamination; if the acid starts to evaporate faster (as would happen in hot weather), the extra acid will spill out of the tray, and since it is heavier than air it will escape through the remaining space around the tray and exit at the bottom of the hive
- The pad will be reusable several times and last 2-5 months depending on the application.
- The tray can be fastened under the open board to modify it into a monitoring bottom board.
- MITEGONE will work with fully open bottom boards. Resent tests in Czech Republic showed efficacy of 87% with open screen monitoring Varoa board. But without it we have 95% and more.

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Pros and Cons of Using Screen Bottoms:

In several state and national meetings, presentations on the effectiveness of screened bottom boards, either open or with monitoring, trapping arrangements were presented. While I agree with most findings I also agree with the general result saying that on its own the screen bottom boards will not do the trick and some other treatment like fluvalinate or coumaphos would be required to help. In that combination pesticide treatments can be less frequent.

- It appears to me that we all forget the fact that our mites are becoming resistant to those chemicals and only treatments with formic acid, tymol, or fumigation with essential oils or other natural substances are the only methods left to use.
- Also, prolonging the time between treatments does not make much sense. We have to treat twice a year at specific times before mites can damage winter or summer bees' brood.
- So before you convert your 1000 hives into screen bottoms you may want to consider the following and learn from the experience.

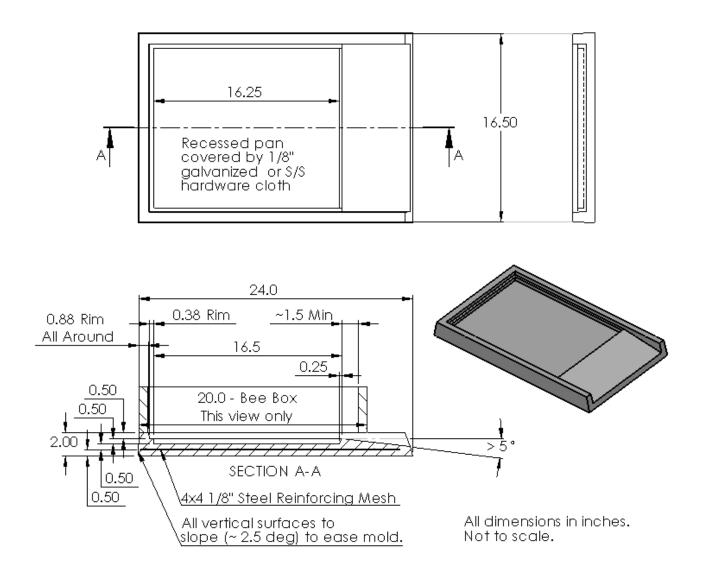
Most of the screen bottom designs will hamper acid treatment and sealing them requires removal of boxes.

We spent hours trying to seal the monitoring inserts. Unfortunately, the water ran through the "sealed" screen bottom board very quickly. To fix it we replaced the monitoring inserts with plastic food trays to catch fumes and create a pool of LETHAL acid fumes.

A few things to consider if you planning on using screen monitoring bottom boards and plan to count mites:

- 1. I have counted many mites and I'm tired of it. I only test 20 hives using sticky boards in the spring and I test 20 more hives twice in late summer. I cannot see counting and monitoring being done on 1000 hives.
- 2. If you are using boards as traps you will have to reapply sticky material to the surfaces frequently to keep the boards moist so they trap the mites or use our pads in food trays to retain acid which kills fallen mites.
- 3 If you really contemplating using screened bottom than I suggest you look on page 3 and modify your old wood solid bottoms, it is simple cheep and does more than more expensive Contraptions.

TROPICAL CLIMATE and MODIFIED SCREEN BOTTOM BOARD



MATERIAL for tropical stationary beekeeping: Fine concrete or fired clay as used for pottery.

WOOD BOTTOMS can be easily modified by adding rims, screen and sloping entry. **THIS BOARD SOLVES:** Flooding of hives by rain, decay of wood, and warping of plastic bottom boards.

THE BOARD SERVES AS: Test screened board by putting 12" X 16" styrene reusable drop board into the recessed pan. (See testing for drop board specification.)

THE PAN RETAINS concentrated formic acid fumes in normal evaporation treatment killing mites dislodged and fallen down by fumes evaporated from hanging pads.

DURING SUMMER and honey flow refilled pads are stored in the pan under the screen fore reuse in August. Pads maintain acid fumes in pan and continue killing mites which do naturally fall down into the pan many times during they lifetime.

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