

Screened Bottom Board

Convert a standard bottom board into a screened bottom board assembly to monitor and/or reduce varroa mite population levels.

Supplies needed:

1. # 8 mesh hardware cloth – size 16½" x 19¾"
2. 2 wooden frame pieces – size 19¼" x ⅞" x ¾" each
3. 2 wooden frame pieces – size 19¼" x ½" x ¾" each
4. 1 wooden frame piece – size 16⅝" x ⅞" x ¾"
5. 1 wooden frame piece – size 16⅝" x ½" x ¾"
6. Rear opening block, used to seal the area at the back, beneath the screened board – 1 wooden piece sized 14 ⅞" x 1¼" x ¾", bevel top edge 10°(will fit the width of most standard bottom boards, it should also fit snugly from top to bottom)
7. 1 ¼" galvanized nails
8. 5/16" staples
9. 2" galvanized nails

Approximately 5 feet of 1" x 2" pine (or 1⅝" x ¾") is required to complete the construction of one screened bottom board. It is suggested that the 19¼" (#2, #3) and 16⅝" (#4, #5) pieces be cut to length first and then rip/cut those pieces to the proper widths. A piece of masonite, 18" x 14⅝" x ⅛" (or to fit the bottom board you have) can be used as a tray below the screen so that it can be removed and cleaned.

The standard bottom board will need to be reversed end to end so that the usual “entrance” is now at the rear of the hive. The screened bottom board will sit on top of the reversed standard bottom board, with the bees entering at the front of the assembly. Cutting the standard bottom board to 20" in length is recommended so that it is flush with the brood chamber. This prevents water from accumulating in the hive and extends the lifespan of the bottom board.

Assembly:

Join the ⅞" side pieces to the ⅞" end piece (pieces #2, #4) (do not nail) and staple the hardware cloth to this ⅞" frame. Place the ½" frame on the screen in the opposite orientation as the ⅞" frame (Fig. 1) and nail it to the ⅞" frame with 1 ¼" nails. Use two 1 ¼" nails at overlapping joints to prevent racking. Keep the screen taut and the frame square during assembly. Drive two 2" nails into pre-drilled holes at the ends of the ⅞" (#4) part of the frame to secure the 16⅝" piece to 19¼" sides (Fig 2).

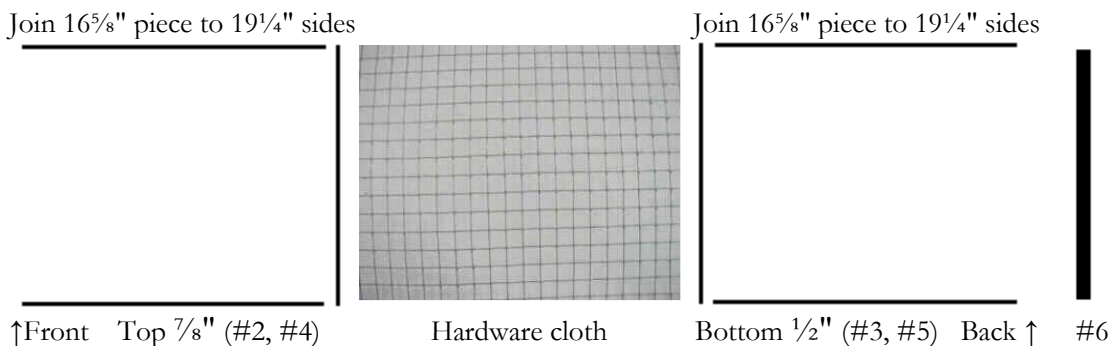


Figure 1 – Three sections of the screened bottom board arranged for assembly



Figure 2 - Screened bottom board with nails in the ends of the $\frac{7}{8}$ " parts



Figure 3 - Sticky board positioned on a tray below the screened bottom board

Design and plans compliments of Paul Kelly and The University of Guelph