Design by Paul Kelly

Screened Bottom Board

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

Materials per screened bottom board:

Item #	Qty	Description
1	1	# 8 mesh hardware cloth or stainless mesh 8 x 8 0.028" – size 16½" x 19¾" (For large quantities, Gerald Daniel supplies stainless steel #8 100ft rolls)
2	2	wooden frame pieces – 19¼" x ⅞" x ¾" each
3	2	wooden frame pieces – 19¼" x ½" x ¾" each
4	1	1 wooden frame piece – 16⅝" x ⅞" x ¾"
5	1	1 wooden frame piece – 16⅝" x ½" x ¾"
6	1	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 snuggly 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 (see Bottom Board design).

Assembly

Predrill and countersink holes into the ⅞" x 16 ⅝" end piece (#4). Then fasten the ⅞" x 16⅝" to the 2 side- ⅞" x 19¼" (#2) with 2” screws (Fig 1,2). Next set up a plywood jig to keep the ⅞" frame square while attaching the screen. Staple on screen, squaring two sides and pulling tight on the third side. After fastening the screen, place the ½” frame pieces (#3, #5) on screen in opposite orientation of the ⅞" frame and fasten with to the ⅞" frame with 1 ¼” staples (Fig. 2). Use two staples at the overlapping end joint. The completed screened bottom board can be dipped in hot wax to extend the lifespan.

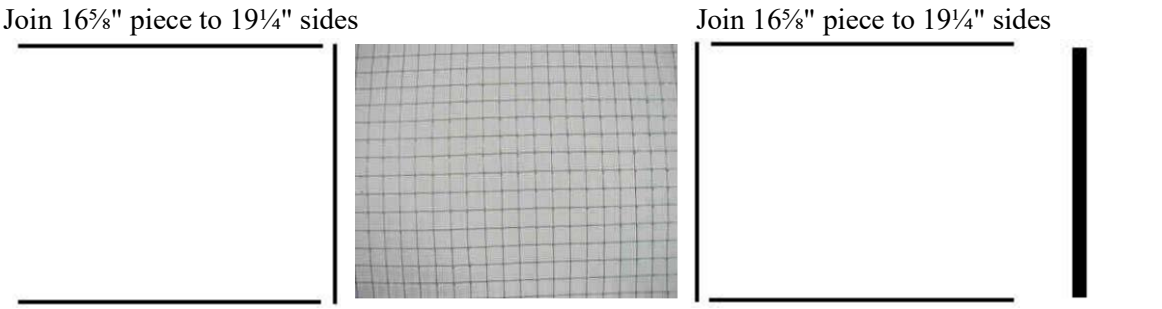

Fig 1. Three sections of the screened bottom board arranged for assembly

Fig 2. Screened bottom board showing the position of screws in the ends of the ⅞" parts

Fig 3. Sticky board positioned on a tray below the screened bottom board

Appendix 1. Stainless steel screen supplier

#8 hardware cloth (SST304 Woven 8 x 8 0.028" 48" x SLIT TO 20" x 100' (2Rls) from
Gerard Daniel Worldwide
205 Courtneypark Drive W, Suite 101
Mississauga, ON L5W 0A5