

# The Juniper Hill Split<sup>1</sup> for Comb Honey Production

by JOHN A. HOGG<sup>2</sup>

## FORWARD:

The Juniper Hill Split<sup>1</sup>, and a clipped queen, make it possible to combine into one plan seamlessly and with minimum effort the most widely practiced strategies for building the strong vigorous colonies needed to produce quality comb honey. These are:

· *Simulation of the naturally swarmed hive* by forcing the swarm, without the loss of bees or their new found zeal.

· *The use of young queens* produced spontaneously in-hive for requeening and double queening.

· *Reduction of two-story colonies to one story* in order to concentrate the bees on comb honey production.

· *The use of powerful two-queen colonies* formed by uniting two independent queen-right colonies.

The plan, when conducted by these procedures, is near failsafe, producing spectacular results in good honey flows, or making comb honey possible in marginal seasons or regions.

## THE PLAN

**STAGE I Pre-Split:** In April, before the first significant honeyflow(s), the *Queen is clipped* in selected double brood chamber hives. These hives are "deep-swapped" at least once to distribute brood above and below, and to discourage premature swarm preparations due to restricted brood nest expansion.

Instead of adding supers for surplus in anticipation of the earliest honeyflows (dandelion/fruit in this region), and to offset swarming then, supers are intentionally withheld to *force the swarm, on the beekeepers timetable*. (See Appendix re. Swarm Intervention.)

The hive is monitored weekly for swarm cells, prior to and beyond the beginning of the nectar flow(s), simply by tilting the top story (#2) and examining the frame bottoms.

When *sealed swarm cells* are found, it is time to start the Juniper Hill split, at once

or promptly thereafter. If *unsealed swarm cells* are found, wait until the next weekly check when they will be sealed. Instead of second-guessing the honeyflow, the beekeeper can in this way rely on the bees to announce precisely the correct timing.

Since swarms usually issue soon after the first cell is sealed, the clipped queen may have by now been lost in the grass in an attempted swarm, or soon will be. If not, she will disappear later without interfering with the procedure.

## STAGE II The Juniper Hill Split (day 1)

First, **destroy all cells but one selected cell** from the easily accessible top story (#2) of I. To do this, gently shake the majority of the bees from each frame to be sure that no small or obscured cell is overlooked. The frame with the selected cell is set aside to be returned when finished, being careful not to damage the cell. All cells in the bottom chamber are left intact.

Note: If weekly cell checks were delayed inadvertently, allowing enough time for a cell to hatch (8 days after sealing), this will become known by observing the vacated cell and/or by the conspicuous presence of fully active virgins found while searching for cells *imprisoned(x)* by the bees. It is not too late to conduct the split in this case, provided that *all cells are then removed*; instead, a virgin will automatically (or manually) end up in this chamber (#2) after the split, as will be seen.

In fact, the split can be conducted at anytime within a period of ten days between the just sealed cell to a 2 to 3 day old virgin. It is best to schedule the split within that 7-8 day period when cells are still sealed. This date can usually be estimated when open cells are first observed by reference to the cell development schedule shown below *The Plan*.

Now, to conduct the Juniper Hill split, it is the bottom story (#1) that is split out to the side and turned to face rear; the top story (#2) is set down onto the parent honey-producing stand, where all flying bees will return.

One easy way to do this, if the colony

rests on one side of a two-hive stand, is to leverage it sideways to the opposite side using a small crow bar; and then the top story (#2), containing a single cell, is lifted down onto a second bottom board placed in the just vacated parent location.

While both brood chambers are open, gently shake the majority of the bees from each frame at the side back into the top of #2 on the parent stand, further concentrating the bees there. While shaking the frames, confirm the presence of cells; it is not necessary to kill surplus cells, the bees will do that for you.

Note: In the event that a virgin had already hatched (see earlier note), her location will not be known and, if in #1 at the side, a partial shake back will not guarantee her return to the parent location(#2). Therefore, simply release an imprisoned virgin back into the parent stand; to have two free-roaming virgins there is not a problem, but a virgin plus a cell will guarantee a swarm.

Comb honey super(s) are at once installed on the parent honey-producing stand (#2). When the new queen mates, nectar stored in vacated brood cells in the interim will be rushed up to make room for the queen to lay, simulating a honey flow to jump-start comb building.

A new queen will also be produced in the side split (#1), where mating success can be confirmed easily, and the queen clipped at the same time. If Apistan strips or the like have been used, they may be transferred here for continued mite control until reunited about 5 weeks later.

## STAGE III The Reunion (week 6, approximately).

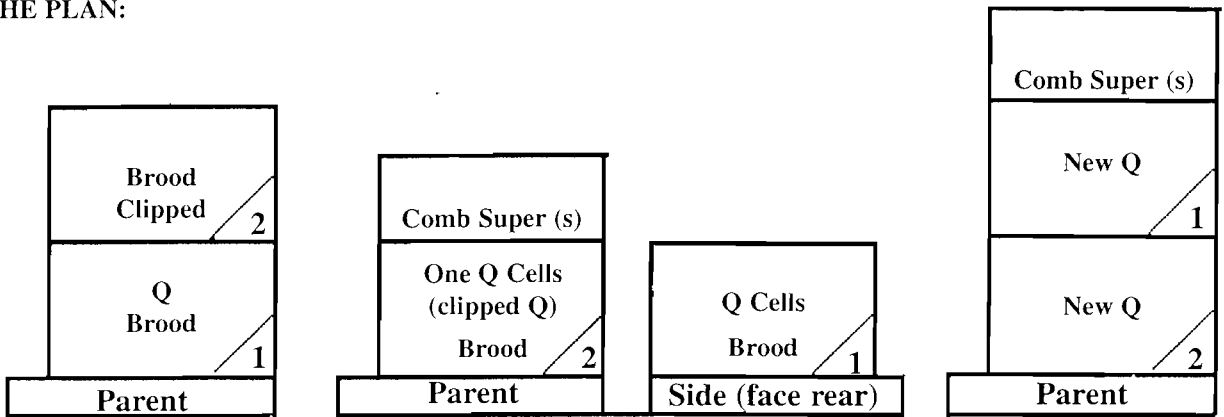
After about 5 weeks, or when the side split (#1) has a full set of brood in all stages and young bees hatching, the side is reunited with the parent to create a powerful two-queen colony.

Supers are returned to continue comb honey production on the parent location, including any supers that the beekeeper may have placed temporarily on the side split to offset swarm cells in the event of a faster than expected buildup, or an unex-

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<sup>2</sup> Hogg, J. A. January 1997 "Comb Honey I: Hive Management" *American Bee Journal*

**THE PLAN:**

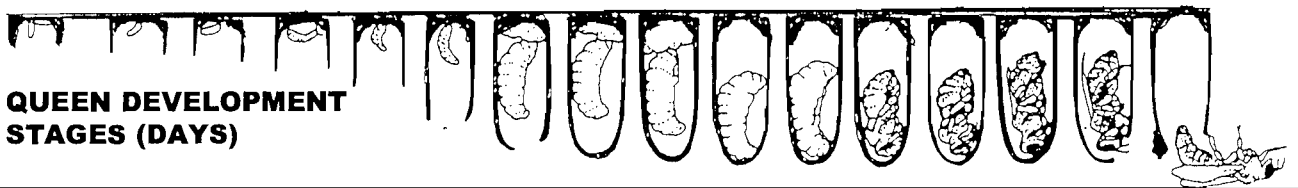


**1** 2-Story Hive (Swarm Cells)

**11** The Juniper Hill Split

**111** Reunited 2Q Hive

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16



**QUEEN DEVELOPMENT STAGES (DAYS)**

pected delay in reuniting the split. Such a super could be a shallow super of empty comb, which could then become the first super over brood to serve as a travel stain buffer.

After reunion, the two queens may co-exist for some time before one of them disappears; however, the beekeeper may choose to separate them with a queen excluder, notched at the rear for drone escape, to extend 2-queen status for the duration of comb honey production, especially if that is anticipated to be prolonged.

**APPENDIX:**

**1. CLIPPED QUEENS:** Clipped queens can be purchased, but it is better to learn to do this as needed. Excellent directions are given by Gene Killion<sup>1</sup> in *Honey in the Comb*, pgs 76-79. The only other skill required in this in-hive queen rearing system is that of searching for cells, evaluating their age and selecting queen cells: The bees do the rest.

**2. MEDICATION:** Miticide treatment in the non-honey producing side after the split until reunited may be an important option for reducing the varroa population buildup during the flow.

**3. SWARM INTERVENTION:** The Juniper Hill Split is an ideal swarm intervention plan, putting bees back to work promptly. If the queen has not been clipped, then the queen must first be found and removed.

**4. TIMING:** The split plan may be conducted at any time, e.g. to produce comb honey in a given honey flow, using the split stage only - while producing extracted honey before the split and after the reunion. It is at the split stage that the bees can be crowded into the comb supers for best fill.

**5. INDUCED SUPERSEDURE CELLS:** Those familiar with the original description of the Juniper Hill split plan will note the change in the method of in-hive queen cell production from "induced supercedure" (see *ABJ*, Jan.1997)<sup>2</sup> to "induced swarm cells" here.

That method was intended to be used before signs of swarming or to reverse swarm cells in favor of induced supercedure cells, using a modified DeMaree, i.e. separation of queen from brood as in commercial queen rearing.

By using forced or spontaneous swarm cells, this plan becomes much shorter by eliminating the DeMaree stage. Cells

are produced with certainty; and the plan is applicable in a wider range of circumstances.

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<sup>1</sup> Hogg, J. A. 1981 "The Consolidated Double Queen Brood Nest and Queen Behavior" *American Bee Journal* Vol. 121 (1) pg. 26; *ibid* 1983 "Methods of Double Queening the Consolidated Brood Nest Hive, Part I" Vol. 123 (5) pg. 385-388; "Part II" Vol. 123 (6) pg. 450-454.

<sup>2</sup> Killion, Eugene HONEY IN THE COMB (1981). Dadant & Sons, Inc.

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