

Requeening a Drone Laying Colony by Joe Lewis

Why a Hive becomes a Drone Laying Colony - Here are the possible situations that could result in a drone laying colony: the queen runs out of sperm, the queen dies, the queen is unsuccessfully superceded, or the queen is accidentally killed by beekeeper with no viable brood present. When the hive has been queenless for a period of 20 or more days with no possibility of making a viable queen, laying workers will usually appear. But there are some cases where laying workers will never appear, and the colony will just slowly dwindle until wax moths or small hive beetles take over and finish the destruction.

There are two main subcategories of drone laying hives: 1) a drone laying queen, and 2) laying workers.

If you have a drone laying queen then she has run out of sperm. The presence of *both* worker and drone brood does *not* mean the queen is a drone layer (yet). But if the queen *has* run out of sperm and now lays only unfertilized eggs (the ones that become drones), ... and you look in the hive still finding worker brood, it can take another 21 days before all those workers hatch! Meanwhile the drone brood increases steadily. So you really have to pay attention and take a look in the hive more than once every 3 or 4 weeks, or you can be surprised (in a bad way). (Note: Don't just "take a look", but know **what** you are looking at and **what** it means. This takes time, practice, and more than one hive for good comparisons. Data, Data, Data.)

If you have laying workers, some of the workers have developed their ovaries & egg laying capacity, and will be secreting small amounts of queen pheromones, enough pheromones to make the hive THINK they are still "queen right"! These workers may be slightly larger and longer than normal workers, but you probably will not be able to tell the difference and will never know which bees are the drone layers. The tipoff is when you see multiple eggs in the cells, scattered eggs, eggs attached to the sides of cells and / or see a lot of scattered worker cells that are being converted to drone cells. Good queens usually lay eggs in regular patterns and only a very young queen will make the temporary mistake of laying more than one egg in a cell, and you won't see this often.



Some Alternatives For a Drone Laying Colony - 1) Combine the hive with a queen right hive or nuc. Use the "newspaper" combine method. (So now you are down one hive, but you can likely make a split later. This is actually a good reason for always raising a nuc and keeping it in standby.), 2) Re-queen the hive with a known good queen --- but this has a less than 3%

chance of success, so don't do it! And it doesn't matter how slowly you do the queen introduction, it will still fail. Don't waste your money. **3)** Give the queenless colony a frame or two with eggs and brood from another colony. Depending on the situation and season this may work. (I would give this a 30% success rate, providing there is still plenty of bee strength left in the hive.) **4)** Shake out all the bees 10 to 15 yards in front of the hive and hope the drone laying workers don't fly back to the hive --- **this never works - So Don't Do It!!!** **5)** Gently move the brood and bees from the drone laying colony into another hive a short distance away. Then add frames with brood and eggs back into the original hive or after a day or so introduce a new queen or queen cell. The theory is that the drone laying workers will remain on the brood comb while most of the other bees will go out, and return to the original hive. Later the drone laying frames can be combined and absorbed into other strong hives. This might work 20% of the time. And finally, **6)** introduce a capped queen cell from another colony --- this works about 80% of the time, but it works better the earlier you catch the situation. (Your actual mileage may vary.)

What the Internet and Some Books Say to Do (they are WRONG!) - Conventional wisdom, the internet, beekeeper old wives' tales and some books say the way to requeen a drone laying colony is to take all the frames out 15 yards or so in front of the hive and shake the bees on the ground. Then return the frames and introduce a new queen. As noted above this almost always fails.

Requeening a Drone Laying Colony With a Queen Cell - While prevention is better than the cure, the best method of requeening a drone laying colony is to use a capped queen cell. And you ask, where can I quickly get a queen cell? Of course: from your **Russian hive** that always keeps a queen cell (or 5) in reserve! The Russians are notorious for keeping "Just In Case" / Insurance queen cells on hand, sometime tearing them down and rebuilding them thru the season or holding 10 virgin captives during swarming season. If you have enough hives and want to have this option, always keep one hive of Russians from which to harvest queen cells. Then if you really want predominantly Carniolans, Buckfast, Caucasians or Italians, you can requeen those hives at a later time of your choosing.



More Insurance: If you are trying to raise a few of your own queens, be sure to add a frame of eggs and young larva just before you think the virgin queen is ready to go out on her mating flight. This will ensure that if she gets lost or eaten by a predator and fails to return, your bees can still raise an emergency queen to replace her if needed. Otherwise you may periodically wind up with some laying workers because about 33% of virgin queens can fail to return to the mating hive!