

INCREASING COLONIES BY SPLITTING/DIVIDING by Amanda Millar June 2013

There are several easy ways to increase numbers to make up for winter losses. Only do it with healthy colonies with good characteristics. It is best done before the main honey flow i.e. before July, as they need time to establish and grow before winter. Use only strong colonies with 6 – 10 frames of brood and abundant adult bees and drones available. If division is made within 2 months before a nectar flow the honey crop may be reduced.

If the split can be given a mated queen, establishment will be much quicker. If only a queen cell is provided then there will be a delay in building up. Make sure it is an advanced queen cell, capped and within a day or two of emerging (less likely to be chilled or shaken off royal jelly). Most early made swarm cells are good quality but emergency cells need careful selection for those made on larvae only one day old. (Egg 3 days, larvae 5 days, capped 8 days; inspect 4 days later and select an open cell, not one already capped which will have been made on a larvae 2 days or older).

Any division should have not less than 3-5 frames of brood and covering bees in order to achieve the critical mass of bees required to expand. Colonies with few bees struggle and do not build up in time for winter, the minimum for rapid build up seems to be 5 frames covered in bees.

Do divisions on warm days when bees are flying freely and calm, using minimum smoke as you may need to find the queen. Reduce entrance size to help defense and reduce robbing. Inspect the colonies without a queen 4 or 5 days later and thin cells to one good one.

Methods:

- 1) Part of swarm control when queen cells are already present; use standard artificial swarm to make two colonies (see B&LBKA website information page for instructions). If the colony is strong enough you could use the same method if there are no queen cells. They will then make emergency cells. Honey crop will be affected.
- 2) If you wish to maximize your honey crop just take off a nucleus with the old queen and a frame or two of brood and a frame or two of stores, a shake of young bees and move well away. The remaining strong part of the colony will quickly raise queen cells. Do not let a nucleus raise queen cells; there will not be sufficient nurse bees to feed the royal larva adequately. Alternatively give them a mated queen (or give the nuc a mated queen) and they will continue to forage almost without a break.
- 3) You could make up a nucleus with the old queen. When queen cells are capped in the original colony introduce the queen back in there and remove the queen cells, putting the best one in the nucleus. This will result in a short brood break in both colonies but the original colony will continue to forage so will not affect honey crop much.
- 4) Another way to maximize the honey crop is to free up bees for foraging. Put most of the open brood, honey, pollen and queen in a new hive, leaving all the capped brood some of the honey and a frame of eggs in the old hive. All the foragers return to the old hive which has little open brood to care for and all the capped will be hatching soon thus freeing up more foragers. It will take them six weeks to raise a queen and get the brood nest going but they can continue collecting honey in the meantime. The timing is critical; do it shortly before the main honey flow. It also helps with Varroa control as there is a brood break. The new colony does not swarm as it has no flying bees and the old colony has no queen.
- 5) If you have a large colony on a double brood, split them into two, equally provided with brood and stores, face them opposite directions on the original site and some of the flying bees will return to each. After a week, swap the hives to equalize the drift to the one with the queen.

Useful downloads:

MAAREC, Dividing honey bee colonies, <https://agdev.anr.udel.edu/maarec/wp-content/uploads/2010/03/DIVIDING.PDF>
Bush Bees, How to do splits. <http://www.bushfarms.com/beessplits.htm>