

# **DIVIDING HONEY BEE COLONIES**

It is sometimes worthwhile for a beekeeper to divide honey bee colonies to increase numbers or to make up winter losses. Dividing the colonies costs little as compared to buying package bees or established colonies. An additional dividend to dividing a colony is that the beekeeper can obtain the net result of swarming, but does so at his or her convenience without the work of swarm capture or risk of missing or being unable to capture the swarm.

Only strong colonies should be used for making divides. In areas having a late honey flow, divisions should be made approximately six to eight weeks prior to the main flower bloom. This will allow new colonies sufficient time to build up strong populations to gather the crop. In areas having an earlier honey flow, colonies may be divided when there are six or more frames of brood present in the hive. Although divisions can be made any time, those made within two months of a nectar flow period may result in the loss of some or most of the surplus honey crop. Dividing bee colonies after June is not recommended (except in the more southern states) since the colonies may not be able to properly build up and store enough honey for winter use.

Colony divisions should be made on a day that bees are freely flying. Colonies will be most gentle at this time. This insures that young bees that have remained in the hive will be transferred to the new hive. Additionally, this will insure warmer weather and there will be less danger of chilling brood.

To divide a colony, the procedure is to open the hive using as little smoke as possible. Fewer bees will scatter and take flight, thus allowing more bees to remain on the combs to be transferred. Find the frame containing the queen and set it aside to insure that she doesn't move to another part of the hive. Next remove frames of brood and honey with adhering bees and divide equally or if the colony is very strong (more than 12 frames with brood) divide into thirds. A minimum of three frames of brood should be given to each new hive. Empty frames, or frames containing honey or pollen, are added to fill up empty spaces left in the brood chamber. The frame containing the old queen is then placed in the original colony or in one of the new colonies. Introduce a new queen (or a queen cell) into the other colony or colonies. It is a good idea to feed the new divides sugar syrup to stimulate production of brood. It is also important to provide entrance reducers to the smaller hives to prevent robbing.

If colonies are maintained in two-story brood boxes, it is possible to divide by simply separating the two hive bodies. Four days after this separation check the two hives and determine which one is queenless. Add a new queen to the queenless colony using a cage introduction method. This dividing method is not very refined and neither original colony nor divide usually produce any surplus honey.

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### SWARM CONTROL DIVIDES

When dividing colonies for swarm control, 3 to 5 frames of brood with clinging bees are removed from those colonies that begin rearing queens. These frames are placed in a new hive and given a queen cell or a new queen. Replace the frames in the original colony with drawn comb if possible since foundation frames may crowd the original colony too much and it may still swarm. It is well to reorganize the frames of the hive that was preparing to swarm, providing as much room for brood rearing as possible to assist in swarm control.

It is possible to take one or two frames from several colonies to form a new hive. This may help alleviate potential swarm problems if done at an early date. It may also be done without a loss of honey crop in the stronger colonies. There is usually little fighting among young bees when they are placed together in this manner. If fighting does occur, smoking the new colony heavily may help alleviate the problem.

## LOCATIONS FOR DIVIDES

When dividing colonies in half, the original colony can be moved slightly to one side so that it covers half of its original stand. The new hive is then placed alongside the colony so that it is partially on the stand occupied by the parent colony. Half the foraging bees will enter one hive and half the other. If the colonies cannot be placed side by side, or if the original colony is split in thirds or more, it is beneficial to move the new hive or hives a minimum of two miles from the original home to prevent the older foraging bees from returning to the original hive.

With some divides, the original hive may be removed and the new divide placed at the original location. As the foraging bees leave their hive they return to the original position since that is the one they know as home. New divides increase rapidly in this situation and the original colony usually is not adversely harmed but it may not produce a honey crop with the heavy loss of its foragers. The divide does not necessarily need to receive the foragers from the original colony. The divide can be placed at the location of a different strong colony in the apiary and that strong colony moved to an alternate position. If done when there is a moderate to good nectar flow, little robbing should result. If there is little nectar forage available, it is best not to interchange any colony positions.

## QUEENS AND DIVIDES

The most efficient method of dividing involves placing a new queen in each of the resulting colonies. This will insure that the colony gets a good start and has an opportunity to survive the winter. It is possible to divide a colony without a queen. A queen cell in the new hive will be sufficient, provided there is the majority of the season ahead. The least desirable alternative is to let the new colony rear a new queen. The delay before the new colony can start worker bee production is quite lengthy and not desirable for a small colony.

If queens are not available, it is best to leave the queen of the original colony in the largest colony if you want surplus honey. She will continue the brood cycle and the colony should be assured of surviving the winter even if they don't store a surplus. Divides that remain too weak can be united in the fall.

### MANAGING DIVIDES

New divides should not be extensively manipulated. Any divide that must rear a new queen cell should not be disturbed for three weeks. It usually is advisable to feed sugar syrup to divides for the first couple of weeks. It may be necessary to continue feeding for a longer time.

Divides should be examined early in the fall management schedule. Weak colonies can be combined with other weak colonies or added to stronger colonies to insure that they get through winter. If a new queen was added to the divide, this queen may be used to head the united colonies as a method of requeening. Fall feeding may be necessary and early fall examination will insure sufficient time to accomplish this task.

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Dividing a colony is a means of obtaining free bees. Divides are an excellent means of increasing colony numbers or for making up winter and swarm losses. When done properly, divides may yield surplus honey and certainly should build up and winter well. Dividing is good bee management. MAAREC, the Mid-Atlantic Apiculture Research and Extension Consortium, is an official activity of five land grant universities and the U.S. Department of Agriculture. The following are cooperating members:

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