

## Factsheet #404

### SWARMING

Swarming is a natural method of honeybee colonies to reproduce, resulting in the creation of a new honeybee colony in addition to the established colony.

#### Causes of swarming

- Crowding - too many bees, food stores and no cell space for the queen to lay eggs in.
- April-May is swarming season and healthy colonies develop strong swarm impulse.
- Inclement weather – crowded bees confined by cold, wet weather will build queen cells and swarm out on the first sunny, warm day. All colonies in similar condition will swarm as soon as weather becomes favourable.
- Large amount of drone brood in early spring is a precursor to a strong swarm impulse.

#### Catching the swarm

A swarm generally emerges from the hive between 11:00AM and 1:00PM and settles close to the apiary for several hours. Allow the swarm to cluster for at least 30 minutes before placing the swarm in a super with ten combs, bottom board and hive cover.

Examine the new colony every week to two weeks from mid-May to late June. Look for disease, brood abundance, brood pattern and overall condition of the colony. Add room where necessary, cut queen cells, or divide, to prevent other swarms from emerging.

Hived swarms may go hungry when there is little forage after establishment. When feeding sugar syrup, add antibiotics as a precautionary measure. (*Note: This is the ONLY time where preventative use of antibiotics is recommended*).

In case where the origin of the swarm is unknown and disease may be present, the newly established colony should be placed in a separate apiary first and examined regularly for disease.

#### Management of swarms

The type of management depends on whether the main goal is a full honey crop or an increase of colony numbers.

For **maximum honey crop**, return the swarm to the parent colony. The colony will be practically as strong as before swarming.

- Place two or three drawn-out combs in an empty super and place on top of the parent colony, separated by a queen excluder. Dump the bees in and cover.
- When the bees have settled down, examine the combs in the top super for the queen. Place the queen in a cage.
- Examine all the frames from the brood nest of the bottom colony for queen cells. Destroy all except one.
- If the old (caged) queen is worth saving, a small nucleus consisting of two combs of brood and adhering bees can be made for her accommodation.
- Capture any subsequent swarms and return to the old hive by simply shaking the bees in front of the hive entrance. Only one young queen will survive and the bees will no longer attempt to swarm. If they do swarm again, repeat this step.

To **increase colony numbers**

- Divide all the brood combs into nuclei, consisting of two frames of brood (covered with bees) and a queen cell each.
- Place the swarm with the old queen in the old hive on ten frames of foundation or drawn out combs, replacing the supers as before.
- Decrease the entrances to prevent robbing.

**Swarm Prevention**

Colonies with young queens and with sufficient space in the brood chamber and honey supers rarely develop swarms.

- **Divisions** made for swarm control only, can be reunited just before the main nectar flow by creating one strong colony. When examining the colony, rearrange or cull poor brood combs. Combs in the brood chambers must not contain large areas of drone cells. Place these frames in honey supers and cull them as soon as possible. (Cut out the comb and replace with a clean sheet of foundation).
- **Clipping Queens** - Some beekeepers clip one of the wings of old queens to prevent swarming. This will provide only temporary swarm control because the bees will wait for a new queen to emerge and then swarm. **CAUTION:** Never clip the wings of a virgin queen as she must still be mated.
- **Cutting Queen Cells** - Tip the second brood chamber and examine the bottoms of the frames. Swarm cells are easily detected. A few puffs of smoke along the frame bottom bars will drive the bees up into the super and will help to reveal queen cells for cutting. Most hives will build swarm cell cups along the bottom bars, but these do not necessarily indicate the urge to swarm unless eggs are present. To further examine the combs, shake bees off and remove all queen cells.
- **Demareeing** – Place a new super of nine empty combs onto the old hive stand. Find the queen and place her and the comb into the middle of the new super. Cover the super with a queen-excluder, and then add a super of empty comb, queen excluder, a super containing capped brood, and a super of young or uncapped brood. All queen cells should be destroyed. Seven to eight days later, check the combs in the raised supers only and destroy any queen cells.
- **The Rauchfuss Swarm Control Plan** - Add a second super as soon as more room is needed in the spring. At the beginning of the main honey flow, insert a queen excluder, honey super and another queen excluder between the two brood chambers. Eight or nine days later quickly check the top super for the queen. If she is in the upper super, cover and set on a separate bottom board. If there are no eggs or larvae, the queen must be in the bottom super. Remove the bottom super and replace with the upper one. Destroy the queen cells in the bottom super and introduce a young laying queen. Alternatively, one queen cell can be left to allow the colony to requeen by itself, but it is better to introduce a young, laying queen. As a rule, this method prevents any further swarming for the season.