Swarm Prevention and Control

Ray Goodman


28/04/2014 16:08:03

Why do honeybees swarm

- Swarming is a natural process that is to be expected
- Some strains of bees swarm more regularly than others
- It is not possible to always prevent swarming

A natural process

- Swarming is the only natural way the colony can reproduce
- The swarm is the genetically the “old colony”
- The original site is potentially the “new colony”
- It is risky for both the old and the new – one or both may die

Is swarming likely?

- The time of the year
- Is the colony ready?
- Is the colony crowded?
- How old is the queen?

The time of the year

- Spring March, April, May
  - March Not very Likely – The New Colony on the Old site is likely to fail
  - April Depends on the weather
  - May Usually likely
- Summer June, July, August
  - June Likely
  - July Likely
  - August Less likely Swarm unlikely to survive – New colony, Old Site OK

Signs in the hive

- The Colony is strong
  - A strong colony will not necessarily swarm
- There are drones and drone brood
  - A swarm is unlikely if there are no drones
- Queen cell cups
  - Will usually be seen in spring and summer
  - Are **no** indicator of a probable swarm
  - No purpose will be served by removing them

Swarm Prevention

- The basic hive examination period from April to August.
- Why you look at the brood weekly is down to the life cycle of the Queen

- Are the bees “crowded”?
- Crowding will make swarming more likely.
- Having enough space will not prevent swarming

- Removing queen cells **will not** prevent swarming

What is Crowded

- Insufficient Supers
  - If any box – brood or super looks 2/3 full of bees in the afternoon, add a super
- Lack of Space in the brood box for the Queen to lay eggs
  - If you see 11 brood frames covered with mostly sealed brood there is definitely a problem – talk to your mentor – it may be better to split the colony before it swarms
  - If there is a strong honey flow cells in the brood box may be temporarily filled with nectar. This is difficult to do anything about other than ensure the hive is properly supered
- Removing Honey.
  - If you remove a whole super to extract honey without replacing it you may crowd the bees.

The three essentials for a swarm

- A Queen
- Brood
- Flying Bees

All three **must** be present

How old is the Queen?

- If this is a collected swarm you probably have no idea of her age.
- Queen pheromone inhibits swarming and reduces with age
- Advancing age of the Queen in a strong colony is likely the major factor in swarming.

Swarmy Bees

- If this is a collected swarm you will have no idea what they are like
- Some bees –such as Carniolan- are not “swarmy” but build up very quickly in spring to become crowded and can be difficult for swarm control.
- Swarmy bees tend to produce lots of queen cells when preparing to swarm.

Hive examination

- Do you know what you are looking for?

- Frequency is Based on the life cycle of queens
  - Queen cell sealed on day 8
  - Swarm usually emerges on the day the queen cell is sealed

- You only need to look at brood frames with brood on them
  - If you see a queen cell **do not** destroy it

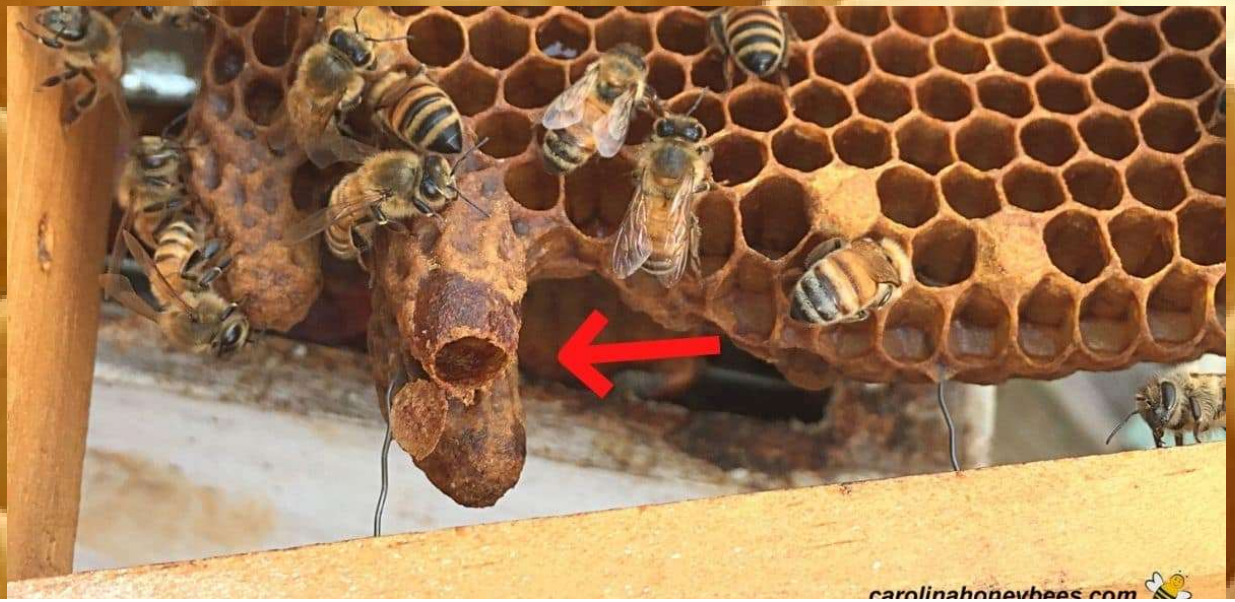
Queen cells

- Swarm Cells

Occupied Queen Cell

Replace the frame
Mark the frame
Continue the inspection


Beekeeping
StepByStep.com


carolinahoneybees.com


orthamptonshi
keepers' Associati

Action

- Swarm Cells

Are any Queen Cells Sealed?

If so very probably the bees have swarmed already.

Can you find a Queen?

All Queen Cells open

Unless you take action the bees will almost certainly swarm – most probably on the eighth day after the first queen cell egg was laid, between 11.00 am and 3.00 pm

Removing all the Queen cells does not work to prevent swarming.

Because:

You will very likely miss one

or – More Significantly -the bees can create a queen from any cell where the egg was laid up to 5 days ago. ie it would be sealed and the bees swarm within 3 to 4 days.

If they are in swarming mode they will swarm.

SWARMING

Old Queen will leave with Swarm, weather permitting, on completion of first cell.

Continual destruction of cells by beekeeper may provoke swarm to leave before sealing of cells.

Larvae of up to 36 hours may be used.

Cell Recognition

Supersedure: Small number of cells (1 – 6) on face of comb. Purpose built cup.

Emergency: Moderate number of cells (6 – 12) on face of comb often of same age. Modified worker cell.

Swarm: Can be large number (up to 100) around periphery of brood nest. Purpose built cups.

DO NOT DESTROY ALL CELLS!

If there are no eggs or young larvae and you cannot find the Queen, the Swarm has gone. Reduce to one cell and make a small nucleus as an insurance.

IF SWARM IS CAPTURED.

Hive on original site move parent hive to one side, then 7 days later move to other side. Parent hive should have new Queen in 5 weeks. Reunite if no increase in colonies is required.

One or more Queen Cells sealed

Do you know the bees have swarmed? Did you see them emerge? Has someone told you they saw the hive swarm?

Do you think the bees have swarmed? Is the density of bees in the hive obviously lower than you remember?

Are there still lots of bees? Has the weather been bad?

Can you find your Queen in the Hive?