



Swarm Prevention
Swarm Control
Swarm Management

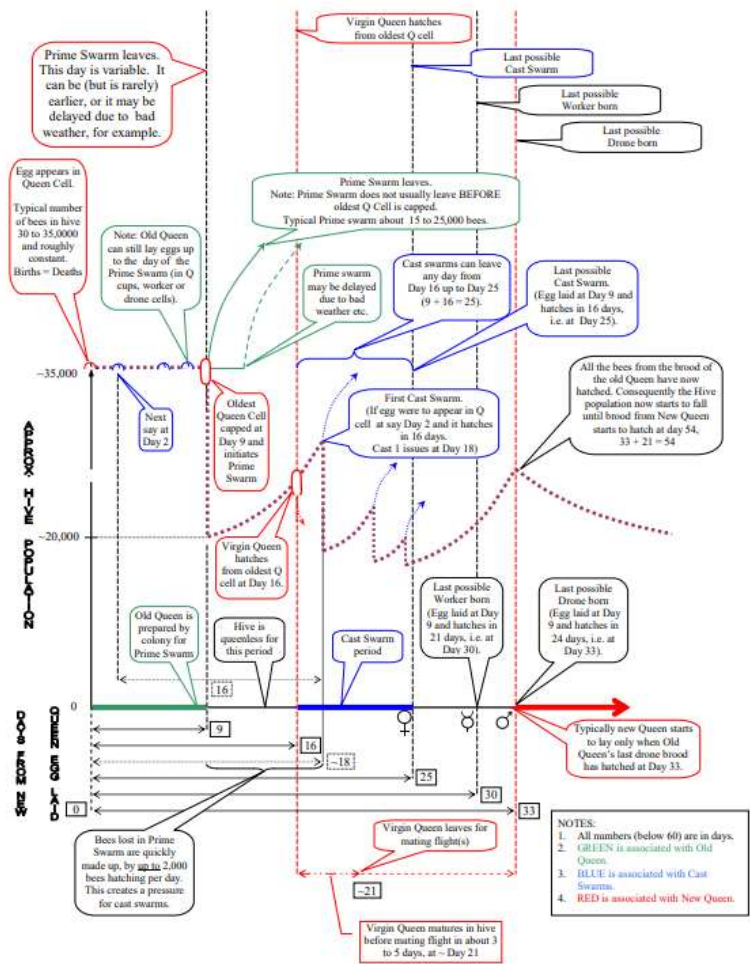
What are the differences?

John. A. Gaut

Master Beekeeper, EAS

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NATURAL SWARM CALENDAR



Basic concept originated by Michael Weiler © 2007 imkerberatung@demeter.de
 Diagram and concept with hive population developed by Ivan Scott [1st issue 2008] ivan@ivanscott.wanadoo.co.uk

Click [here](#) to find the online copy

Or cut and paste:
http://www.midwesternbeekeepers.org/wp-content/uploads/2015/04/Swarm_Calendar_Ver7.NoX-9Jan08.pdf

Swarm Prevention

- Swarming is instinctive for Honey Bees
- Reproduction is a colonies Mission, not Honey Production
- The swarming instinct is natural and necessary
 - Otherwise Honey Bees would be extinct
- Swarm Prevention often is working against the honey bees natural instinct



Swarming Control

- Swarming Control is a reactive approach
 - Cutting out queen cells
 - Checker Boarding the Brood Nest

Swarm Management

- **Swarm Management is PROACTIVE Beekeeping**
 - Reduces swarming by reducing the swarming impulse
- A colony is not going to swarm if there is less than a 50% chance of one or both colonies surviving
 - If a colony swarms and only the swarm or parent colony survives, they have not successfully reproduced; there is no net increase in the number of colonies.
- A colony has to prepare to swarm and have the right balance of bees and other resources
 - Swarm preparation begins long before any queen cells are established!
 - Increased brood rearing
 - Increased population, especially young nurse bees
 - Storing Honey over the brood nest – A HONEY DOME
- **Swarm Management is the prevention of swarm preparation**

Causes of Swarming - NOT

Overpopulation
Broodnest congestion
Honey Bound
Queen Cells

- **These ARE NOT the ROOT CAUSES of swarming**
- These are just steps to prepare for swarming
- The conditions needed to complete the colonies mission to reproduce – A swarm CHECKLIST!

Conditions needed to Swarm

“Swarm Checklist”

1. A population large enough to split into 2 colonies, >30,000 bees
2. Capped Brood to replenish the parent colony
3. Enough young nurse bees to swarm and establish a new colony
 - Most of the workers in a swarm are young bees, not older foragers!
 - The young nurse bees carry nutrition to the new hive – Vitellogenin
 - The young bees are the wax makers and build the new comb
 - The nurse bees use their vitellogenin stores to feed the brood
 - While foragers are part of the swarm, they will decline in numbers soon after the swarm is established
4. Enough honey and pollen in the parent hive to feed the emerging brood after the swarm departs
5. Capped Queen Cell

Swarm Management

Make Items on the Checklist a NO-GO!

1. A population large enough to split into 2 colonies, >30,000 bees
 2. Capped Brood to replenish the parent colony
 3. Enough young nurse bees to swarm and establish a new colony
- Move brood frames and bees from stronger hives to weaker hives – Equalize
 - Replace with empty frames of comb in good condition
 - Provide MORE THAN ADQUATE room for the brood nest
 - 2 Deeps Reverse Deeps
 - Split – Make a NUC

Moving brood and bees out of the parent colony reduces population and reduces the swarming impulse.

Swarm Management

Make Items on the Checklist a NO-GO!

4. Enough honey and pollen in the parent hive to feed the emerging brood after the swarm departs
- Empty Supers with drawn comb above the brood nest – Early!
 - Over a Queen Excluder – Optional!
 - The queen excluder could be placed under the supers 24 days before extracting (make sure queen is in the brood boxes!)
 - Bottom Supering
 - Empty comb above the brood nest reduces the colonies perception of adequate food stores and enables more nectar processing outside of the brood nest.
 - Do not add supers of foundation until on a strong nectar flow and swarming impulse has diminished
 - Colonies will draw out foundation if it is placed under the queen excluder. If the foundation is above the queen excluder, the colonies often do not draw it out into comb.

If there is no honey over the brood nest (a honey dome), the swarming impulse will be reduced.



Swarm Management

Make Items on the Checklist a NO-GO!

5. Capped Queen Cell

- Now reacting, a last resort to cut out or move to a nuc
- Often fails because all of the multiple queen cells are difficult to find.
- Could make the parent colony queenless because they have already swarmed. The capped queen cell was their only queen!

Preform other swarm management steps early enough so queen cells are not established!



My Colony Swarmed!
“I think they are queenless”

My Colony Swarmed!

“I think they are queenless”

Queen Schedule After A Swarm			
Enter the Date the colony Swarmed ----->			Wednesday, June 28, 2017
Date	Age	Task	Notes
Tuesday, June 20, 2017	0	Egg layed in Queen Cup	
Saturday, June 24, 2017	4	Egg has hatched into a larva now	
Wednesday, June 28, 2017	8	Cells capped.	Swarming usually occurs when the first cell is capped or nearly ready to cap. Poor weather may delay the swarm. There is usually multiple swarm cells.
Thursday, July 06, 2017	16	Queens emerge.	Small cell queens may emerge earlier. “Enlarged” queens may be on time or a day or two late. In hot weather expect them a day early. In really cool weather they may be a day late.
Monday, July 10, 2017	20	First possible day to fly	
Tuesday, July 11, 2017	21	First possible day to mate	
Monday, July 17, 2017	27	Still mating	
Monday, July 17, 2017	27	First day eggs could be found. Look for eggs. Weather can set things back. Check again every couple of days.	Weather can set things back. Check again every couple of days.
Saturday, July 22, 2017	32	Treat with Oxalic Acid Dribble 3 to 5 mL of 2.8% OA:50% Sugar Solution per seam of bees Any old Brood has emerged and new brood has not been capped.	
Thursday, July 27, 2017	37	If no eggs are found by now the queen isn't going to lay or will be a drone layer (or it is so late in the year the bees don't want to rear brood). Remove the queen and requeen or combine.	
Thursday, August 10, 2017	51	Evaluate the Queen for egg laying pattern. If pattern is not satisfactory, consider requeening.	The queen should have been laying for 3 weeks or more and a capped brood pattern should be evaluated.

My Colony Swarmed!

“I think they are queenless”

- The colony swarms when the first queen cell is capped.
 - The swarm may be delayed in poor weather
- The new queen will emerge about 8 days after the swarm
- The queen will start her mating flights about 2 weeks after the swarm
 - By this time there is only capped brood in the colony
- Three weeks after the swarm, the new queen may begin to lay
 - Often laying will not start until about 4 weeks after the swarm
 - By this time there is no brood in the colony
 - This is a great time to treat with Oxalic Dribble, since there is no capped brood.
- Four weeks after the swarm, the new queen should be laying.
 - If no eggs four weeks after the swarm, the colony may be truly queenless
- Six weeks after the swarm, verify the queen is laying a good pattern of capped worker brood, not drone brood.

Do not ASSUME the colony is queenless after a swarm because you have not seen eggs or larva for three or more weeks! There is very likely a virgin or newly mated queen in the colony. Introducing a laying queen will result in the death of one of the queens, probably the introduced laying queen.