

Northeast Beekeeping School

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Maysville Community and Technical College, Maysville, KY

Class Topic: Queen Issues and Re-queening

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The queen is the center of the universe for our hives:

- Lays on the average 1500 egg per day, can go up to 3000
- The bees in a hive are only as good as the queen
- She determines temperament, honey production, genetics, etc.

Queen issues we face:

- Difficult to buy good queens
 - Mass produced and quality doesn't exist
 - Once queen starts laying she is caged and sold
- Queens aren't productive egg laying machines, poor genetics
 - Bees will supersede the queen
- **Very poor acceptance from purchased queens** (sometimes it is the beekeepers fault)
- Most queens come from south and don't winter well up north
- Have trouble with diseases and pests, nosema and varroa mites
- Swarming potential

Breed of bees:

- Italian
- Carniolan
- Russian
- Minnesota Hygenic
- Buckfast

Italians:

- **Good:**
 - Most common bee people know about and get in packages
 - Gentle
 - Good honey producers
 - Spring buildup good

- **Bad:**
 - Work the least and especially in bad weather
 - They lay in the summer when there is no flow and consume a lot of resources
 - They like to rob other hives
 - Bee most susceptible to varroa mites and diseases

- **Carniolan:**
 - **Good:**
 - Gentle
 - Rapid spring buildup
 - Work the longest and best, even in bad weather
 - Winter very well
 - Queen stops laying in summer when there is no flow, conserves resources
 - Not as bad robbing
 - **Bad:**
 - Tendency to swarm more
 - Not as good honey producers as Italians
 - Mite resistance to varroa mites slightly better than Italians

- **Russian**
 - **Good:**
 - Have good resistance to both varroa and tracheal mites
 - They winter very well, small clusters that conserve resources
 - 2-4 frames
 - Buildup explodes in the spring, 2500 eggs per day
 - They require pollen to trigger growth
 - Queen stops laying in summer when there is no flow.
 - They draw foundation quickly
 - **Bad:**
 - Very prone to swarm because of the explosive spring buildup
 - More prone to swarm than Italians or Carniolans
 - Don't under estimate them regarding swarming, it happens quickly
 - Difficult to re-queen with
 - Introducing a Russian queen to a non Russian hive is difficult
 - Allow 7-8 day delayed release
 - Push-in cage the best method
 - Russian to Russian re-queening as normal

Re-queening:

- Much debate on re-queening every year
- Young queens swarm less
- Around first of March check to see how queen is laying

- If queen isn't laying good by May 1st, re-queen or split
- If a hive isn't producing honey, re-queen
- Best time to re-queen July-September (after honey flow)
 - You want young queen laying into winter
 - Need to provide 1:1 and pollen to keep queen laying in fall
- Re-queen around April 1st to prevent swarming
 - Various per your location
- Can't re-queen a laying worker hive with a caged queen
 - They will kill queen
 - Add frames of eggs and brood once a week until they raise a new queen
 - Combine on top of a strong queen right hive

- **Re-queening with caged queen:**
 - Delay release 4-5 days
 - Watch for bees biting on cage
 - Use painters tape over candy hole to delay release
 - Place cage in center of brood with candy hole to the side
 - Check in 6-7 days for queen release
 - If release leave the hive alone for 10-12 days to allow queen to be accepted
 - Disturbing the hive can cause bee to reject the queen
 - Hard to re-queen in summer with a caged queen
 - Bees prefer to create queen from young larva in summer

- **Re-queen using a push-in cage:**
 - Very high acceptance rate for queens
 - Place on emerging brood
 - Make sure no other bees in cage
 - Queen will begin laying in open cell
 - Emerging bees will accept queen
 - Wait 4-5 days before releasing queen

- **Re-queening with a nuc has very high success rate:**
 - Transfer 5 frame nuc to regular hive box
 - Combine nuc with hive using newspaper

- **Finding a queen:**
 - Do not use smoke
 - Smoke makes bees very active and queens runs
 - Usually on frames of eggs
 - Usually not on frames of honey or brood
 - Queen doesn't like the sunlight, will move to other side of frame quickly

- Put a queen excluder between the boxes and wait days then see which box has eggs
- Marked queens much easier to find