Honeybee Swarm Prevention and Control

Presented by Carey Mitchell May 2, 2011 WCBA meeting

Definition: **PREVENTION—**Action taken before signs of swarming

Prologue:

- Strong colonies naturally swarm 1-2 times per year
- Average swarm size: 16,000 bees (plus or minus)
- Queen lifespan—possible to 9 years
- Sperm count may dwindle

Action:

1. Install young, well-mated queen in spring or summer of her first year.
2. Choose breeds for swarm propensity—Italian (A.M. Ligustica) low, African (A.M. Scutellata) high, others range mid way
3. Provide for brood area expansion AND food storage increase—monitor for cell drawing tendencies—(chimney effect (undesirable), ball effect (preferred)
4. Good ventilation thru the year, especially around time of dandelion bloom (Spring)
5. Swarms occur more often in warm, sunny hive locations, less in shaded areas
6. Control pests and diseases—mites, small hive beetle, chalkbrood, Nosema causes stress and discontent in hive
7. Monitor brood for spring buildup, possibly inverting hive body locations to provide upward brood expansion (keep stores near colony, don't split brood area)
8. Install supers to provide expansion of food storage area (don't let bees take brood cells for nectar and pollen storage.
9. Checkerboard brood area when weather warms

Definition: **CONTROL**—Action taken when swarm signs are evident and swarming is imminent

Signs:

1. An abundance of drones and drone brood
2. Queen cups with jelly and larvae, capped queen cells
3. Young worker larvae, no or few eggs
4. Large colony population (adult bees and capped and open brood)
5. No or very few open cells (brood or food containment)
6. Queen seen on other than middle of brood area, moves erratically and/or quickly

To Stall Swarm:

1. Separate brood and queen
2. Open up her brood nest—empty comb, or better, foundation
3. Capture queen—pint jar with perforated lid, queen cage
4. Move her brood and food out of her reach

CAUTION: DO NOT cut out queen cells or contain queen by use of excluders unless you had a specific reason or backup plan—a. Bees in removed 'split' may be left queenless and try to develop a queen from older larvae and b. A queen excluder that keeps the colony in the hive will also become lodged with drones trying to get out, thus suffocating all the bees in the colony.

5. Keep a 'Bait Hive" on hand—foundation and one or more drawn comb frames to attract the swarms that issue—pheromones and lemongrass oil help to make these attractive.

Honeybee Colony Splits

To Make Splits:

1. Use frames of brood and bees from one or more colonies to create a basic colony, including nectar and pollen frames, and a mated or virgin queen, or queen cell
2. Use ready-drawn queen cells from colonies ready to swarm—already better fed and of proper age larvae—the more splits the better
3. Feed new splits: 2:1 sugar water to help build brood; continue until young foragers are available
4. Provide plenty of room for expansion in new splits and the parent colony
5. Move spits or divides to a new stand nearby, or set them on top of parent colony, over a double screen, with the entrance facing the opposite direction to the parent colony
6. Install entrance reducer to protect against robbing in a nectar dearth
7. Install top or side ventilation (screened) to any new split colonies

If You Catch a Swarm:

1. Use it as a new colony; provide room for rapid expansion, including supers (add a frame of brood to entice them to stay)
2. Use it as an increase of population for a weaker hive—shake the swarm from the capture box or bag, to a sheet laid up to the weak colony entrance: let the 2 queens decide who reigns
3. Install a queen excluder over single hive body after installing the swarm, and add cut comb supers over excluder—Caution: Need a good honey flow for cut comb; also need to remove frames of brood as queen fills hive.
4. Requeen quickly if old queen shows signs of weak laying pattern or brood disease
5. Caution: Swarms taken from locations other than your yard should be quarantined away from your yard until their health status is known!

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