



Controlling Swarming

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"If I were to meet a man perfect in the entire science and art of beekeeping, and were allowed from him answers to just one question, I would ask for the best and easiest way to prevent swarming." Dr. C. C. Miller

What it is – Swarming is Mother Nature's way of reproducing a colony. It is the departure from the hive of an old queen (usually), some drones, and 50 to 90 percent of the workers in a colony. Several swarms may issue from a hive in very short order leaving the hive nearly empty.

Why it should be controlled – Swarming reduces colony size and cuts honey production. One colony of 60,000 bees will produce far more honey than two colonies of 30,000 bees.

When it occurs – Swarming is generally a springtime phenomenon. It usually begins in April and continues through June, but weather conditions can affect the timing of swarming. Not infrequently it is associated with several days of wet weather followed by dry and clear. It often occurs immediately prior to a nectar flow.

Why it occurs – Swarming occurs as a way of ensuring the future survival of the bees should one colony fall victim to diseases or pests. There are several hypotheses that attempt to explain why swarming occurs. Swarming may result from over crowding in the hive, a failure of the bees to transmit the queen's scent, or a lack of space to store honey.

How to control swarming – There are a number of widely-practiced procedures that can address the problem of swarming. Three particularly important procedures are reversal of hive bodies, timely supering, and colony splits. Though these methods may help control swarming, they will never completely eliminate it.

Reversal of hive bodies – This is done in the spring in an effort to keep open brood areas above the cluster. During the wintering process the cluster moves upward in the hive leaving empty comb below. Bees will not store honey beneath brood, so reversing provides storage space where it is most needed. The reversal process may have to be repeated a second or third time as the bees work their way upward through the hive. **Colony splits** -- The colony is divided into two units after which swarming should not occur. The old queen plus half of the brood and bees are moved to a new hive at a distant location. The colony in the old hive is allowed to raise their own queen, or a new queen is introduced. Honey production will suffer as a result of the split for reasons mentioned above.

Timely supering – By placing supers above the brood chamber before nectar flows, there should be plenty of room for the bees to store honey as the nectar is brought in thereby reducing the urge to swarm.

Other less labor-intensive, but just as important, procedures for controlling swarming include working with queens and other general considerations:

Keep young queens – Colonies with queens less than two years old are unlikely to swarm. Requeen every two years to reduce swarming and to ensure healthy, productive queens. A colony with a three-year-old queen is twice as likely to swarm as a colony with a two-year-old queen. There appears to be little difference between queens of one and two years.

Keep productive queens – Queens that are failing to lay a sufficient number of eggs or produce enough of the pheromone known as queen substance are prone to supersede. When the old queen is replaced through supersede, swarming sometimes takes place.

Act promptly when signs of swarming appear – When you see that a swarm is about to issue from the hive (appearance of multiple queen cells, crowded hive conditions, bees "hanging out" near the hive entrance), act promptly and decisively. The more drastic the means utilized, the more likely preventive measures will be successful.

Treat causes rather than symptoms – Develop a good understanding of the swarming tendency, and avoid measures that merely treat symptoms and generally delay rather than prevent swarming.

What won't work – Some practices supposedly used to prevent or remediate swarming, do little more than delay it. Among these practices are the following:

clipping one of the queen's wings – This procedure is often used to mark new queens resulting in a queen that cannot fly. The new queen's left wing is clipped when acquired during odd-numbered years; the right wing when acquired in even-numbered years. This often provides a false sense of confidence due to the fact that the queen cannot fly away with an issuing swarm. When a colony swarms and a clipped queen is forced out of the hive, she cannot fly and generally cannot return. Such a queen is thereby lost. In this case, the swarm returns to the hive and leaves a few days later with a virgin queen. Swarming has been delayed, not prevented.

removing queen cells – Cutting out queen cells can delay swarming, but does not reduce the swarming urge. The bees will work diligently to raise another queen until such time as they can do so successfully. Their efforts generally outlast those of the beekeeper and swarming occurs.

returning a captured swarm to its hive – Unless the factors that caused the swarming to occur in the first place are corrected, returning a captured swarm to its hive will only be an invitation to further swarming.

Benefits of swarming – As much as has been said about swarming that is negative, some good may yet occur. Capturing a swarm is a lot of fun and a great way to build up the number of colonies in your apiary. Swarms are usually quite gentle and are easy to work with. Because larger swarms usually contain an old queen that soon will be superseded, it is wise to requeen the colony after removing the old queen. Sometimes beekeepers are called upon to remove swarms from trees, bushes, the eaves of houses. This can provide an additional source of income for the beekeeper.