

THE FOLLOWING FACTORS CAN CAUSE THE LOSS OF HONEYBEE COLONIES:

VARROA MITES - Varroa mites spread viruses and other diseases, weaken the immune system of the honey bee, and cause emerging bees to be deformed and undernourished. Mites are the most damaging of all of the stressors on the honey bee and are strongly implicated in Colony Collapse Disorder. The single most important thing a beekeeper can do is keep the mites under control.

PESTICIDES Honeybees are exposed to agricultural pesticides while foraging and can collect contaminated pollen which will be fed to developing bees at a later time. Considerable controversy exists about which pesticides are actually killing the bees and which ones are not. Miticides that the beekeeper places in the hive to kill the mites and also pesticides. When insects such as the honeybee are subjected to two or more pesticides, the effect is multiplied by more than the two. Beeswax adsorbs and accumulates pesticides. It is very advisable to get rid of old and darkened comb which harbors pathogens and may have reduced cell size.

STARVATION Colonies often starve when there is still honey in the hive. In very cold weather the bees will not leave the cluster in order to get to the honey that may be in the hive.

Be sure to leave enough honey on the hive for the bees and feed the colonies well before it is too late for them to process the sugar water. To be sure the bees have enough stored for the winter, feed them for as long as they will take the syrup. Why not feed them until they no longer take the syrup.

Putting insulation around the hives may help the bees break cluster in cold weather and allow them to get to the honey.

NOSEMA Nosema is a honey bee disease that is caused by a parasite. It is difficult to cure once the bees are infected.

Fumagilin. is used for the prevention and treatment of Nosema. This antibiotic is administered to the hive in a sugar syrup.

Nosema causes dysentery and one obvious symptom is spotting on the front of the hive and often inside as well. It is advisable to treat packages of bees with Fumagilin when they are installed. Some beekeepers feed Fumagilin in the fall.

AGE OF THE QUEEN Colonies often die over the winter or in early spring because the queen has died or is no longer laying eggs at a normal rate. Be sure to check the hives in the late summer or fall to be sure the queen is producing a good brood pattern. Try to keep track of the date the queen was replaced either by yourself or the bees. The older queens are more likely to die than a younger one. The cost of replacing a queen is cheap when compared to the cost of losing a hive or a crop of honey.

VENTILATION Moisture is produced by the bees when they metabolize honey. Many hives have been lost because of water dripping down from the inner cover onto the cluster of bees. It is absolutely essential that the hive has adequate ventilation. Ventilation is achieved by a controlled air flow up through the hive. Too much air flow and the colony cannot keep the brood warm and the bees will not be able to break their cluster to get to available honey and with too little the moisture cannot escape. One way of facilitating ventilation is to place an insulating board (Celotex) on the hive that has a channel cut through it from front to back allowing air to pass to the outside of the hive while not promoting condensation.

INSULATION While not a cause of colony demise, insulation has been shown to be beneficial to helping the bees through the winter in the northern climates as referred to above.

NUTRIENT POOR DIETS It has been well established that bees that do not have a diversified diet have very weakened immune systems and are poorly equipped to deal with the insecticide and disease challenges that they currently face. If the beekeeper does not have a varied source of pollen and nectar for the bees within flying distance of the hives his only recourse is to find a better location for the apiary.

Beekeepers can definitely limit their hive losses by dealing properly with the above items.

Beekeepers with a large number of colonies quite often do not have the time to devote to each colony that a hobby or side-liner beekeeper does and can rarely invest the time and expense of insulating the colonies. But, if you can, DO IT!