Apis m. Esoteria 5

Fat Bees

The most important objective of bee keeping is to have “fat and happy” honeybees. This is very hard to recognize. You must be able to tell the difference between “happy and sassy” and “fat and happy”. “Fat and sassy bees don’t quite make it. “Fat and happy” bees are healthy. Anxious or stressed bees catch illnesses easily, the same as humans. Observe, Observe, Observe! In the hive you will see abnormal behavior more easily. There are no pictures on the web that show this. You must be observant. You must recognize normal patterns and activities. The “abnormal” will then jump out at you. The bees will talk to you.

Once the bees are installed in the hive, your main management objective is to keep the bees healthy.

Hive location is important as it supports warmth and dryness inside the hive. This will reduce moisture build up, hindering bacterial and fungal pathogens. Morning sunlight is the best. It will dry the dew off the hive boxes and wake up the foragers.

Warmth will aid in early brood building at the appropriate time in the spring.

Feeding dry pollen substitute as a method of filling out the "fat bodies" in the bee is a viable health aid. The bees will consume the pollen as well as store it. Fat bees come from ingesting the correct pollen that is loaded with limpid fats. The "fat bodies" are organs in the abdomen of the honeybee which act as the liver. They filter non-lethal doses of insecticides and herbicides out of the bee. They also act as a fat source when the bee is deprived of food during a dearth period. Winter is the longest dearth period. It may be prudent to feed dry pollen when also feeding sugar syrup. Pollen patties or dry pollen will stimulate the queen to lay more eggs. A good trick early in the spring. The nurse bees consume the pollen as bee bread while feeding the larvae. This stimulates enzyme production in those nurse bees.

In hive temperature regulation can be aided by having strategically located shade that falls on the hives in the afternoon. If your honeybees must rely on bringing water into the hive to facilitate evaporation and reduce the temperature, there will be a drop in honey and brood production as the water carriers are removed from foraging.

Proximity to a water source (natural or man-made) will aid in the hive's thermal regulation and honey processing for bee food.

Managing the numerous pests and pathogens (each with their own technique) will increase the health and strength of the bees.

Managing the varroa mite (*Varroa destructor*) is your number one challenge. The mite will weaken the bees allowing other pathogens to further weaken or kill the bees. Varroa mites attack the "fat body glands" of the bee sucking out the stored fat and vectoring (injecting) some of about 33 known viruses.

Trachea mites can restrict bees breathing. This will weaken the bees by not allowing enough oxygen to be absorbed during strenuous activity. Eventually the mite bodies and scar tissue in the trachea tubes will strangle the bees.

Bacterial and fungal pathogens are generally manageable using "Best Management Practices" (BMP) for bee keeping. There are medications available that work well as needed.

Managing Stress is important. Stress weakens the bees. Anything we can do to reduce stress from external forces will help the bees.

All pollen is not equal. Later I will try to write about which pollen makes the best bee food.