

Swarming, Causes and Control
with Package Bees

Most beekeeping journals, to day, refer to swarming in but the scantiest terms. Colonies which swarm are, naturally, less productive, as there is a slow-down of the queen's egg-laying capacity, so, from the economic standpoint, it is better to prevent a swarm rather than control it.

Causes of Swarming : Colonies may swarm because of one or more of the following :-

1. Too many bees for the physical space available
2. With high temperatures more space is required
3. Poor ventilation and air drainage, colony heat is increased
4. High humidity and poor ventilation bees require more space
5. Storage space filled with honey, nectar, pollen and brood and not sufficient space for population to control temperature, ventilation and humidity
6. Some stocks have greater swarming tendencies than others
7. Old queens not producing enough queen substance as population increases

Swarms - Prevention and Control.

1. Give colonies plenty of room for bees to stand, rear brood, store honey, nectar, pollen and produce wax
2. During early build-up, colonies should receive maximum light.
3. Allow colonies plenty of ventilation
4. Good air drainage is a must at all times
5. Whole supers of foundation are not recommended as there will always be a percentage of colonies that will balk at their use. When putting on foundation, interspace three or four combs per super as too much foundation at one time during heavy honey flow will cause the colony to be short of storage space until foundation can be drawn
6. Use young queens, as old queens have a tendency to fail during periods of heavy egg-laying when their maximum capacity is needed
7. When moving colonies, move those with the largest population to yards where early flow is expected, and substrength colonies to later flow areas. This will help considerably with swarm prevention and control

Management practices, which embrace the foregoing factors, are recommended if maximum colony growth and productivity are to result.

H.R.

23rd. March '74

Bulletin No.6 (Supplement)

Honey Bee Extract Checks ARTHRITIS : A team of British medical researchers believes it has isolated a powerful anti-inflammatory substance from the honey bee.

The scientists, at the Kennedy Institute of Rheumatology in London, England, and Guy's Hospital Medical School, have named the substance peptide 401. In one test it proved to be 100 times more potent than hydrocortisone. In another test it considerably reduced the experimental arthritis induced in rats if given after the arthritis had been established. If given at the same time as the substance used to induce the arthritis, it usually prevented the arthritis from developing.

The research, reported recently in the Medical Post, indicates all the observations were made in animals.

Throughout the ages, beekeepers have contended that bee-stings are good for all sorts of rheumatism. The conventional medical belief has been that beneficial action bee venom might have was due to its acting as a counter-irritant, the researchers said.

Bees' Abdomens New Research Aid : The tiny detached abdomens of honey bees may replace rats, mice and other laboratory animals as the most experimental physiological data.

R.J. Pence, a University of California at Los Angeles entomologist, says honey bee abdomens have been used to detect air and water pollutants, analyse soil chemicals, test pharmaceutical drugs and even to detect changes in human blood during and following stress.

Not only are the abdomens incredibly sensitive to the most minute chemical changes, they provide many kinds of data in a few minutes instead of weeks, he said.

Pence, a specialist in toxicology, said the need for animals in the preliminary testing of many compounds has been eliminated altogether by the use of the bee abdomen. In time the bees may completely replace animals, saving the cost of their maintenance. Most importantly, however, the bees respond so fast and accurately to compounds that we can do in a few minutes tasks that take much longer with other animals. No pain is involved, he noted, another advantage in certain procedures.

Pence said the honey bee's head and abdomen are attached by a slender petiole - a slender, stalk-like structure - through which the esophagus and ventral nerve cord passes. The bees have no blood vessel system and their blood flows free throughout the body, including through the petiole.

Contd/

Contd/

When the petiole is snipped, and the parts separated, the abdomen continues to live for 72 hours or more, pulsating as the blood continues to flow free, Pence said. The brain dies instantly, and the detached abdomen has no feeling.

The abdomen contains the respiratory, circulatory nervous, digestive and muscular systems, all of which remain intact when the abdomen is detached.

Worker bees that do not develop sexually are used. However, Pence said, the latent reproductive system also remains intact in the detached abdomen. All of these systems can be studied in the compact living laboratory.

When the abdomen petiole is cut, a tiny wound remains where it was attached, and substances we wish to test are placed on this wound, Pence said. They are immediately sucked into the abdomen by the free-flowing blood that is circulating inside, and reactions to any of the physiological systems can be detected almost at once.

The bee abdomen lab system was developed by Pence and Manuel Viray, a research assistant, and Peter Lomax, of the U.C.L.A. department of pharmacology.

Pence said there is a remarkable biochemical similarity between bees and higher animals, another important factor in achieving significant experimental results. He said bees seem well suited to chemical studies of both hypoglycemia and hyperglycemia, inadequate and excess amounts of blood sugar. By regulating the blood sugar in the bee abdomens, the U.C.L.A. physiologists can induce symptoms similar to diabetes. Even insulin shock can be produced.

(The foregoing extracted from Vancouver Sun)

Let Honey-Bee your Sweetener : Honey is one of the few sweets that possesses natural laxative qualities. It is also one of the quickest stimulants known. Moreover, the use of honey in the diet as a sweetener does not result in heavy production of body fat that follows the use of refined white sugar. Dr. Lorand, eminent nutrient expert, regards the use of honey as ideal for the heart muscle. Honey is the only animal carbohydrate available to you as a sweet. It is the only natural sugar of its kind - being 99% predigested when it reaches your table. In addition to being an excellent energy food, honey is also one of nature's most powerful germ killer. Mixed with a little lemon juice, it is an excellent remedy for a simple cough. Honey cannot ferment in the digestive tract, as does white sugar and all the foods made with it. Honey is the outstanding natural sweet to use in infant feeding. With its enzymes, honey can aid digestion. It has been known to aid in the functioning of the ductless glands, chiefly the thyroid. BUT, best of all, HONEY TASTES GOOD !!!

Stir $\frac{1}{2}$ cup of HONEY into two cups cooked oatmeal the last few seconds of cooking. A perfect team for better breakfasts.

~~©1964, 1965, 1966~~