

**INCREASE OF BREEDING AND DEATH IN THE BEE FAMILY, BENEFIT PERIODS**

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Abstract

In the article, there were many attempts to study the spring and summer development periods of the bee family in the climatic conditions of Uzbekistan. In the conducted studies, it was recognized that there are 3 specific periods in the development of the bee family in the conditions of our republic.

Keywords: Bee family, spring and summer, productive, nectar, periods, different species, village, egg, swarm, brood, colony, valley, queen bee, worker bee, male bee, temperature, relative humidity.

Introduction

The bee family regularly reproduces in spring and summer, the number of individuals in the family changes, and a new generation emerges, making the family more productive. It is known that every day in a bee colony, a certain number of old, old bees die during the nectar collection period and as a result of various other accidents, away from their hive or within the colony. In order to compensate for the dead bees in the colony, the queen bee regularly lays many eggs and constantly raises a new generation, but since births outnumber deaths in the bee colony, the bees the family is always developing and multiplying, and vice versa, if the number of births in the family is less than the death, in these cases the bee family stops developing.

There have been many attempts to study the spring and summer development periods of the bee family in the climatic conditions of Uzbekistan. In the conducted studies, it was recognized that there are 3 specific periods in the development of the bee family in the conditions of our republic.

- 1) The period of replacement of overwintering bees;
- 2) The period of rapid development of the bee family;
- 3) It is possible to see periods of accumulation of large numbers of unemployed young bees.

In the first period, 1 month after the queen lays eggs, the old bees that have come out of winter are replaced by newly hatched young bees, and this period includes the time until the period of intensive work of the bees in the colony. In the climatic conditions of Uzbekistan, spring begins very early (this is the case in the Vokha regions), in the first days of February, queen bees lay up to 100-160 eggs in one day, and the number of egg-laying increases day by day.



The second period in the development of the bee family is characterized by the rapid and rapid development of this family in the upper pictures. With the increase in the number of nurse and young worker bees in the family, the daily egg-laying of the mother bees constantly increases.

The growth of the bee family begins in the third period, when the strength of the family, that is, the number of bees in the family exceeds 2-2.5 kg. This period is called the period of accumulation of unemployed bees in the family, and it lasts until the family strength reaches 2.5-4.5 kg. During this period, the egg-laying rate of the queen bees increases tremendously, and the rate of egg-laying in one day exceeds 2000 eggs.

But the number of maggots is much less compared to the number of young bees in the bee family, and there is a significant difference between the eggs laid by the mother bee and the young bees. Since there are slightly more young bees emerging than dying old bees, the colony grows larger. As a result of the accumulation of a large number of worker bees in a bee colony, the strength of the colony increases, albeit slightly. During this period, physiological changes occur in the body of unemployed bees in the bee family, their aging slows down, and the age of the bees in the family increases. As a result, such bees accumulate a lot of energy and useful protein substances in their body for living. Based on the above, in order to use the power of bees during this period, it is advisable to move them to places where serasal plants grow.

Research Methodology:

Bees in the family continuously take care of the brood in the frames from early spring to late autumn, they create a moderate temperature for them, keep the humidity at a moderate level, provide the hive with fresh air, and control the gas exchange. Bees keep the temperature constant around $+340 +35^{\circ}$ in the place where the main brood is located. If the temperature drops below this level ($+320$ C), the bee brood will not be fully developed, the wings will not be developed, and the poor quality bees will hatch, and their development period will last much longer. In some cases, bees die completely. If the temperature in the beehive exceeds the set value ($+380$ C), a certain number of offspring will die due to the hot temperature, the bees will become very weak, even when they come out of their hives, they will not be able to pierce the hive traps by themselves. . If the temperature exceeds $+380$ C $+40^{\circ}$ C, the offspring in the nest will die completely.

When the air temperature drops in nature, the metabolism of the bees instinctively increases, as a result of which they produce a hot temperature due to the frequent contraction of the pectoral muscles in their body. In addition, the bees of the family settle on the frames. 35-40 bees crawl on every 100 bee hives in the usual arrangement, and when the air temperature drops, this amount increases by 2 times, as a result, the hot temperature in the hive increases.

During the period of extreme decrease in air temperature ($+5-100$ C), the bees in the hive are very close to each other, becoming a group, preventing hot air from escaping from the hive, until the hive maintains a constant temperature inside the hive, the temperature may drop slightly at the edge of the hive and near the flight hole, but here the bees collect fresh air flow and send it to the hive.

Also, in cooler weather, queen bees like to lay eggs in dark-colored frames, because in such dark colors, bees have hatched several times, and they have bee maggots. These shirts always keep the heat in the frame. On hot days, on the other hand, queen bees like to lay their eggs in light-colored, clean-poured rums because they can't retain heat as much.

**Results of the Study:**

Queen bees always lay eggs in the cleaned inches in the hive. Before laying eggs, worker bees clean each cell, remove excess wax and clean it transparently with a special propolis liquid. In the bee family, there is a certain relationship between the mother bee laying eggs and the nurse bees who raise them. The bees in the family are in charge of laying the eggs of the queen bees. For this, before the queen lays eggs, 8-12 related feeder bees always surround her in an elliptical shape 5 mm away from the queen.

The number of appropriate bees around the queen bee is changed and updated frequently. The queen bee's ability to lay eggs depends on how much food she receives. If the queen bee leaves the level of the cleaned cells, the queen bee colony will disperse, and the queen bee will not lay eggs during this period. When the queen bees return to the cleaned cells, the related bees will join them again and the queens will continue to lay eggs. Along with the increase in the number of young bees in the family, the laying of eggs by the mother bees also increases. However, the old queen bees in the family leave uneven spaces in the frames and lay eggs, which is called "different brood".

"Different generations" in the cells of a beehive can occur as a result of the death of maggots in a family from disease or malnutrition. However, such events should not occur in a healthy family, such a situation may be caused by the reduction of spermatozoa in the sperm sacs of the mother bees, or by the worker bees suddenly laying unfertilized eggs in their cells. Such a male bee throws maggots out of the beehives. As a result, the seed layer on the surface of the frame is not flat, but has a different color. It is necessary to replace the queen bees in such a family.

There are two genera in the bee family. Among these are open-breeding worms. Bee larvae usually have a period of three to seven days after hatching. During this period, young worms feed a lot, grow rapidly and enter the pupal stage of bee development. During this period, the top of the offspring is covered with wax caps. During this period, the closed generation passes the entire metamorphosis period, and after 12 days, it turns into a mature imago insect and produces high-quality worker bees.

Experiments show that during the season, bees feed 200-300 times with worms for 1 hour. Bees visit the hives more than 1,000 times in a 6-day period to feed the bee larvae. As a result of young bees feeding on a large amount of pollen, a lot of excrement accumulates in their hindguts. To release this excrement, they fly out of their nest into the field for the first time. It is during this period that they seek out the environment and mass flight in search of warmth. The flight during this period is noisy, they make various sounds and fly for about 5-10 minutes. To do this, they first turn their head towards the beehive and fly to the target, after a while the flight becomes much rarer, they empty the excreta from the hindguts and return to their nest. On days when the air temperature drops, they fly in the middle of the day after the air warms up, and on hot days - from the morning.

Conclusion:

From the observation and conclusions of the division of labor of bees, it was found that the designated young hive bees in the bee family do all the work. Internal organs and glands of young hive bees in the family are well developed. However, bees in the hive do not complete all the tasks, when they start one job, another one finishes it, and in this way, one after the other, they perform all the tasks in the hive together. If the bees fall on the young offspring, they feed them, or if the



wax falls on the honeycombs, they weave new wax curtains. When the young bees clean the cells they have hatched in the hive, they start feeding the young maggots and produce wax. After it grows up, it builds new frames, guards the nest, receives the flower and processes it. Thus, the bees in the family perform all the work one after the other.

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