

CHARACTERISTICS OF BEE FAMILY DEVELOPMENT AND GROWTH PERIODS

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Abstract: In the article, the bee family does not simply increase in live weight during the growth period, but during this period, two different, contradictory, opposite processes occur in their life. That is, if the number of births in a bee family is less than the number of deaths, bees from such families will decrease day by day without development, and if the number of births in a bee family is equal to the number of deaths, such bee families will not grow. stands on the plain, if the number of births in a bee family is greater than the number of deaths, such families are always growing and developing. In beekeeping, this third period is the most favorable, because during this period, many new colonies and package bees can be formed from the bee family.

Key words: bee family, growth period, contrast, live weight, queens, package bees, discharge, physiological, pollen, perga, birth, unemployed bees, acclimatization.

Introduction: The main task of the beekeeper is to strengthen the bee family from early spring and turn it into a full-fledged family, to prepare for the main honey collection period and the formation of new bee colonies. For this, it is necessary to carefully monitor the development and growth of the bee family.

During the period of growth, the bee family not only increases in live weight, but during this period, two different, contradictory, opposite processes occur in their life. That is, if the number of births in a family of bees is less than the number of deaths, the number of bees from such families decreases day by day without development. If the number of births in a bee family is equal to the number of deaths, such bee families do not grow, they stand on the same plane, if the number of births in a bee family is greater than the number of deaths, such families are always growing and developing. . In beekeeping, this third period is the most optimal, because during this period, many new colonies and package bees can be formed from the bee family.

Research methodology: Growth periods of the bee family. In the spring months, each bee family goes through 3 periods of its own growth and development,

during which the bees in the family develop both quantitatively and qualitatively and form the basis of the family.

The first period is the replacement of old wintering bees in the bee family. During this period, the bee family makes its first release flights after the colony, is still in a weak state, and is just preparing for the breeding of new offspring. The fact that the mother bees begin to lay eggs indicates the formation of physiologically young worker bees in the family, and of course, the weather and food have a great positive effect on this.

The first period is characterized by the fact that during this period all old wintering bees are gradually replaced by young bees, that is, 30-35 days pass from the first cleaning period to active development. In addition, during this period, bees are very free and have their own characteristics, they move freely from one family to another, and the new mother bees accept them without any resistance. Due to these features of the bees, the power of the bees to strengthen the bee families and the necessary family bees provide opportunities to freely replace the mother bees.

In good conditions, during the winter, the bee families will keep their strength until the beginning of warm days until the spring. Even when the weather is good, there is an increase in the family, sometimes the old bees in such families become weak after spending a lot of effort and energy in raising the young generation, as a result, the number of deaths in such families is greater than births. will disappear. But with the beginning of spring, when the family is full of fresh pollen and aphids, the family will slowly move to the second period of its growth.

The second period is the period of rapid growth of the bee family. The period of development and growth of the family begins after the exchange of overwintered bees in the bee family. Of course, the main reason for this is the fresh pollen and flowers that come to the family in the spring. During this period, the growth in the bee family varies depending on the number of bees in the family, that is, when there are 0.5-2 kg of bees in the family, the growth and death in the family are equal.

But during this period, the number of new young bees gradually increases day by day, and the characteristics of feeding and raising the young generation become stronger. Of course, it is positively influenced by the external environment, weather conditions, and the world of flowering plants.

The number of bees in a bee family and the number of their offspring in equal proportions depends on the specific relationship between the parent bees and the mother bees in the family. Queen bees lay eggs only in wax cells cleaned by worker bees and are always surrounded by young worker bees that are feeding. During this

period, the quality of bees in the family grows, and the size of the offspring in the hives increases.

Thus, in the bee family, the laying of eggs by the mother bee is coordinated by the nurturing and feeding bees. Because the more eggs a mother bee lays, the more worker bees raise them. Sudden changes in weather during this period have a negative effect on the heating of offspring in the family. As strong as the bee family is, any weather conditions will not have any negative effect on the growth and development of the family, on raising the offspring.

In the second period, the strength of the family and the picture of growth will depend on each other. Weak families go through a long period of growth, and in strong families this period develops rapidly and passes into its third period of growth.

The third period is characterized by a gradual decline in the growth of the family, the accumulation of a large number of unemployed bees in the family. This period lasts a long time, and the weight of the family reaches 4-5 kg. Queen bees begin to lay many eggs, but slowly the growth of the family slows down. The stronger the family, the slower it develops, even the number of births in the family is equal to the number of deaths.

A large number of unemployed young bees appear in the family due to the imbalance between the laying of eggs by the mother bee and the rearing bees. That is why this period is characterized by the accumulation of too many unemployed bees in the family.

From the above-mentioned features, it is known that in the third period of the family's growth, the following qualitative changes occur in the bee family, i.e., the average daily age of the bees is high, a large number of young ones in the family bees accumulate and their number increases slightly compared to the number of bees in the family, the average survival rate of bees increases.

Therefore, in the third period, the establishment of a large number of new bee hives and package bee families in the bee family does not affect the main family strength, on the contrary, the young unemployed bees accumulated in the family are provided with the necessary work and make a significant contribution to increasing the productivity of the family. adds

Ye.Russkov (1951) was the first to explain the use of bee hives in Uzbekistan for the development of the bee family and their strengthening until the main honey harvest. After that, K. Rakhmatov (1967), who reworked this method, improved it in the

experimental farm of the Livestock Institute of Uzbekistan and applied it in large-scale development.

In the long-term research conducted by T. Azimov (1978) in the Tashkent region of our republic, it was found that the largest number of young bees was collected at the end of April during the growth and development of local bees. Also, V. Gaidar (1974) shows that during two years of acclimatization of two strains of Carpathian bees in the Tashkent region, they reached the highest peak of development in the first days of May, and the daily egg-laying of queen bees reached 1400-1750.

Research results: Importance and effectiveness of the establishment of beehives.

In the conditions of our republic, in the second half of April, in order to increase the number of families in the apiary, new beehives will be formed. There are many ways and methods of organizing beehives, and each beehive is shaped as it pleases. A method that is widespread and gives good results in our republic is the formation of new beehives individually or collectively. The method of dividing families into two equal parts is rarely used.

In the conditions of our republic, the earlier the formation of new beehives begins, the more time it has for its development until the main honey collection season, but the bees' maturation and honey collection in the family will be fruitful. Also, before starting to organize new beehives, it is necessary to raise the necessary number of future mother bees and male bees suitable for fertilization.

The third period in the growth of the bee family provides good opportunities for the formation of new beehives. During this period, a certain amount of 1 from the main family; 1.5; Taking live bees up to 2 kg does not have any negative effect on the future growth and development of the bee family (Azimov T, 1971).

When newly established beehives are given fertilized bees, they produce more bee brood and build up enough energy to produce additional honey until the main honey collection season begins.

Many experiments have been conducted in Uzbekistan, Turkmenistan, Kazakhstan, and Russia in order to efficiently use beehives. In all conditions, taking a part of the main bee family and establishing beehives did not negatively affect the main family, on the contrary, the main family was well developed, there were no cases of separation, and they managed to regain their previous strength until the start of the main honey collection season.

In the experiments carried out in the oasis regions, when 1.5-2 kg of bees were taken from the main bee family and colonies were formed, the queen bee families

produced 16,670 offspring from April 21 to June 4, until the beginning of the honey collection season, and by this time, the colonies produced 14,500 offspring. raised This certainly led to an additional 14-41% increase in honey production by each hive.

A) Periods of establishment of beehives.

In order to increase the honey yield, it is very important to increase the efficiency of the establishment of new beehives, because strengthening such hives before the main honey collection season and participating in honey collection play an important role.

It is very important that the mature bees of tomorrow live until the main honey collection season and participate in it, because each established colony of bees must pass a period of 51-55 days before the start of the main honey collection season. 21 days is the development period of worker bees and 30-35 days is the maturity period of bees. Taking this into account, counting the flowering period (51-55 days) before the beginning of tomorrow's honey harvesting seasons in the regions of Uzbekistan, for example, until the main flowering period of alfalfa, alfalfa, cotton and other crops begins. it is recommended to organize beehives.

Conclusion: Taking this into account, from many experiments conducted in the Bukhara region (Toraev O. 2000), it was found that the bee hives established on April 27 were in full force until the main honey collection season began (June 4), and as a result, bees under control 76.6% more than the hives, and the beehives formed on May 8 and May 20 were not able to reproduce to a sufficient level for the honey collection season, as a result, the beehives collected a little less honey. Therefore, it is very important to pay special attention to the periods of the organization of bee hives. The best period for the establishment of branches is the end of april and the first half of may.

The beehives established in may collect less honey from the hive, but they fully develop and participate in the main honey collection season when the cotton buds bloom.

LIST OF REFERENCES

1. Isamuhamedov A.I. Nikadamboev H.K. Basics of beekeeping development. Tashkent. "Sharq" publishing house, 2013.
2. Krakhotin N.F. Beekeeping in Uzbekistan. Tashkent. "Work". 1991.
3. R. Jamolov, O. Torayev, D. Khatamova. "Fundamentals of beekeeping", Study guide. 2022. Ferghana. "Classik" publishing house. (p. 55-57)
4. Kakharamonov B., Isamuhamedov A., Ballasov U., Ergashev S., Toraev O.S. Personal assistant, farmer and farm beekeeping. Tashkent, 2009.
5. Nujdin A.S. i second. Uchebnik pchelovo, Moscow. "Colossus", 1984.

6. Technology of artificial insemination of queen bees in conditions of Uzbekistan R.Q Jamolov, O.S. Torayev. Methodological guide "Fan ziyosi" publishing house. 2021 (p. 28-33)
7. Jamolov, R., Tolipova, H., Okhunova, D. (2022). Vorroatosis mite disease of bees in the climatic conditions of Uzbekistan and methods of combating it. Science and innovation, 1(Д7), p. 50-55.
8. Kushmatovich, J. R., Safarovich, T. O., Rustamovna, J. D., Pardaevich, A. T. (2022). The effect of artificial insemination of queen bees in the Fergana valley on its ovulation. Academia Globe: Interscience Research, 3(6), 1-5 p.
9. Koshmatovich J. R. G. Qayumova. et al. Technology of feeding families of bees in different types of households in Uzbekistan //Galaxy International Interdisciplinary Research Journal. - 2022. - T. 10. – no. 3. - S. 295-301 p.
10. Jamolov, R., Azizov, R., Oktamova, Z. (2022). Peaceful replacement of queen bees by honey bee colonies and factors affecting queen quality. Science and innovation, 1(Д7), p. 229-233.
11. Jamolov Rapikjon Kushmatovich. G. Qayumova. "The role of bee pollination in Uzbekistan and its role in increasing productivity." Pedagog Journal 12.2 (2022): p. 176-179.
12. Jamolov, R., To'Raev, O., Azizov, R. (2022). Maturation and variation of spermatozoa of male bees reared in mountainous and sub-mountainous regions of Fergana region depending on their age. Science and innovation, 1(Д8), p. 496-501.
13. Jamolov, R. Q., Khatamova, D. M., Kholmatova, M. A. (2022). Classification and chemical composition of honey. Oriental renaissance: Innovative, educational, natural and social sciences, 2(11), p. 1031-1036.
14. Jamolov, R., Abduvaliyev, B., Ma'murova, Z. (2022). Development of beekeeping in Uzbekistan and its importance. Science and innovation, 1(Д8), p. 462-466.
15. R.Q. Jamolov., D.M. Khatamova., M.A. Kholmatova. "The lifestyle of the bee family". Science and innovation, 1(Д7), pp. 666-671.
16. R.K . Jamolov, G.H. Sharofiddinova - [Significance of banitrofication of bee families in beekeeping](#). (2023. 66-70 p.)
17. R.Q. Jamolov, G. H. Sharofiddinova. [Honeycomb, structure and reproduction of inches in the frame](#). 18 (1), 57-61 p.
18. R.Q. Jamolov, G.H. Sharofiddinova. [Methods of preparing and organizing family of nursery bees](#). 18 (1), 62-65
19. R.Q. Jamolov, G.H. Sharofiddinova. [The structure of bee genitals](#). (2023). pp.11-18