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HONEYCOMB, STRUCTURE AND REPRODUCTION OF INCHES IN THE FRAME

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Abstract: in the article, the life of bees depends on the inches in the hive, so the bees use the wax plates produced by their wax glands to build new inches. Each newly constructed wax inch has a solid base, and they build inches parallel to either side of that base. Honeycombs consist of several hundred of these waxy cells, which are attached to a single bee frame. A collection of bees in one place in a family, a complex of food storage and breeding is called a "beehive". Between the frames in the beehive, bees live, deposit nectar, honey and pollen, and bring up new generations in them.

Key words: beehive, wax plates, inches, farm sign, class category, closed brood, brood sap, larva, family strength, pollen, soft inches, triangle, quadrilateral, pentagonal
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Introduction: The life of bees depends on the inches in the hive, so the bees use the wax plates they produce from their wax glands to build new inches. Each newly constructed wax inch has a solid base, and they build inches parallel to either side of that base. Honeycombs consist of several hundred of these waxy cells, which are attached to a single bee frame. A collection of bees in one place in a family, a complex of food storage and breeding is called a "beehive". Bees live between the frames in the beehive, deposit nectar, honey and pollen in the hives, and raise new generations in them.

Bees have innate instincts such as protecting their nest, heating and gathering food reserves, breeding. This condition is especially strong for bees that lived in the wild, because they knew how to protect themselves by living in tree hollows, between branches, and filled all holes and crevices with propolis.

Even though bee boxes have been invented nowadays, this instinct has remained stable in them, and they cover all the holes in the box with propolis and plaster it. At the same time, they used their niches to protect themselves and their nests from other enemies.

Even when bees lived in the wild, to build a nest in tree hollows, they first glued the wax firmly with propolis, and then built wax inchas. Even now, when building newly built hives, the bees firmly glue the hives to the timbers of the hive, and then

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begin to build it. The mumpardas glued with propolis stick firmly to the rum sticks, as a result, the newly woven mumpardas are resistant to any external forces.

Research methodology: In natural conditions, bees have adapted their nests according to their width and shape, in one place they are large, and in another place they are small. After the human intervention in the life of bees, this biological environment changed a little, the frames in the beehives were specially made, waxes were attached to them, and the frames were removed from the boxes when necessary. With this in mind, the beekeeper always takes free hives from the beehive without disturbing the bees, examines them, or adds new hives.

The worker and male bees build nests on the frames of the beehive. It is for these that he accumulates a supply of food.

The thickness of the wax frames that produce offspring in the beehive is variable and is 24-25 mm. There is a 12-13 mm space between one frame and another frame, that is, the distance of the corridor, which indicates the strength of the family. In this intermediate space, bees can move to both sides of the frame and work freely without interfering with each other. Bees often put honey in the holes in the upper part of the beehive frames, so under the influence of such holes, the space between the frames can be reduced to 5 mm, adapting to the passage of a single bee. In some cases, the gap in honey-filled and wax-covered beehives can expand up to 16 mm, and in such cases, the thickness of beehive frames can be expanded to 28-30 mm, and in some cases up to 35-45 mm.

The frames of the bee family can be placed at any distance from each other, but the distance between the frames of the bee family should not exceed 12-13 mm, otherwise, if this distance is wide, they will stretch the inches in the frame and die. moderates the distance in the middle, or if the distance is narrow, the bees gnaw the wax walls in the frames and make a moderate space for themselves, as a result, many bees frames are damaged, and the wax raw materials die. Such damaged frames are not suitable for future work and are not well received by bees.

The structure of inchas in bee frames. Bee hives are built in parallel along the three-sided bases placed on both sides of the hives and from this base in both directions. The final shape of the inchas is similar to six-sided garlands, and they are firmly connected to each other. The base of each incha is formed in the form of three rhombuses, which serve as the basis for three more inchas on the back side of the mumparda. Bees build different types of worker and male beehives, intermediate hives and queen cups and queens in the hive.

The average diameter of the hives used for worker bees is 5.4 mm, and the depth is 11-12 mm. The average diameter of the male bee hives is 6.9 mm and the depth is 14-16 mm. The thickness of the side walls of worker bees is 0.069 mm and that of male

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bees is 0.091 mm. There are 4 worker bee hives and 3 male bee hives in 1 cm2 area of the beehive frame.

Many male bees build nests at the bottom of bee frames. Such hives are intended only for breeding male bees. In male bee production, after the larvae reach adulthood, they are covered with waxy caps, but they are much larger and rounder than worker bees. That is why the space between the frames where the male bee nests are located expands up to 5 mm. When male bees come out of their hives, worker bees cut off the thick pieces of wax, which are too high, and bring the space between the frames to the previous state. These hives of both types serve to raise the offspring of bees, as well as to place food honey and pollen for them.

ntermediate hives are located between the hives of worker bees and the hives of male bees. They are triangular, quadrangular, pentagonal, sometimes cylindrical in shape and irregular in structure. These inches serve only to place honey. These inches are often located on the edges and edges of the frame. The mouth side of all the inchas in the rum is directed slightly upwards, and the flowers, pollen and honey placed in such inchas do not flow downwards.

There are 9,100 inches in a 435x300mm beehive frame in one model. Of these, only about 8,000 are suitable for breeding bees. There are 100 worker and 70 male bee hives in a 5x5 cm area of the beehive frame. The weight of one hive filled with honey is 3.6-4.0 kg, and the weight with pollen is 1.3-1.5 kg.

Bees build different types of queens in the middle and on the edges of the frames - migratory queens and peaceful alternating queens. To build peaceful queens, usually when the old queen dies or disappears, they build wax cups in the middle of the frame. After the mother bee lays eggs in these cups, after three days young maggots appear. The nurse bees feed these larvae continuously with milk and raise them to adulthood. Adult worms are in the mother's womb, their mouths are closed with wax caps. The shape of the queen bee is cup-shaped, similar to the fruit of an oak tree, and it is firmly attached to the frame of the bee, its mouth is directed downwards. The bottom of the uterus consists of a thick layer, and the upper layer is thin and thin. The inside is smooth. The size of the queens is not the same, it always depends on the strength of the bee family and the arrival of nectar and pollen from the field. (Nikadambaev X, 1989)

Koch anadones are usually built on the edges and lower parts of the frame. Such nests are usually built before the preparation for the separation. The outer part of such mother-in-laws does not have the shape of inches. Under normal conditions, the volume of the mother's nest is 824 mm3, and in periods of low aphids, it is 728 mm3. The length of ordinary mother is about 20-25 mm. (Toraev O. 2009).

Artificial beehives are the basis for building new hives - in beekeeping based on modern technology, artificial hives are used for training new beehive hives. Artificial

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candles are thin paper-like, made of wax, its smell is similar to the smell of fragrant honey, and it is white-yellow in color. To do this, after the wax is melted in hot water, it is cleaned and hardened with cold water and passed between rollers to form it. In this way, the shape of bees' honeycombs is printed on both sides of the mumpardan. After the artificial honey bees are transferred to the bee family and glued to the new frames, they begin to build by the bees along the base of the hives, looking from top to bottom, but the male bees also dry the hives in the outer part of the hives.

Research results: 70 g of wax is produced by bees to build new frames consisting of artificial beeswax. Bees spend 110-120 grams of wax to build a new hive without wax.

Freshly brewed bee rum is white, clear and transparent. Gradually, as a new generation emerges from it, its color changes, eventually becoming black. In this case, when the bees are hatching, the larval coats remain inside the incha, as a result of the bees crawling on the frame in large quantities, the black spots on its legs darken the incha, and as a result of the bees cleaning the incha with propolis. , they change their color quickly.

Due to the large number of new generations, the inches are left with many coats of maggots, they become smaller, as a result, small worker bees emerge from the inches. Such worker bees are weak and work according to their abilities.

Worker bees produce wax plates from wax glands to weave new combs. Between the last four rings on the abdomen of worker bees, there are wax glands. The wax glands of newly born worker bees are not well developed. When the field has good nectar and pollen, the wax glands of the bees develop well.

The development of wax glands in worker bees not only depends on their age and nutrition, but also changes depending on the seasons. For example, no matter how many young worker bees there are in autumn, they are still less developed than in spring and summer.

In the last four rings of the abdomen of worker bees, i.e. sternites, there are two wax windows, they produce 8 wax plates at a time. The weight of one piece of wax plates is 0.25 mg, and each 100 wax plates is 25 mg, 1 kg of wax contains 4 million. wax plates.

It takes 13 mg of wax or about 50 wax plates to build one inch of worker bees. It has been found that male bees spend 30 mg of wax or 120 pieces of wax plates when building their nests.

Summary: Worker bees of all ages gather together to form garlands to feed new frames. During this period, if the normal temperature in the nest is 35-360, quality nests are built. Bees produce 1 million pieces of wax plates in a day. Raising new hives of bees takes a lot of energy, which they generate from consuming a lot of food. To make 1 kg of wax, bees use 3.5-4 kg of honey. During one season, a strong bee colony can

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weave up to 8-10 new bee frames. One bee colony produces 5-7 kg of wax per year. 1 kg of bees produces up to 500 g of wax during its lifetime.

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. Academicia Globe: Interscience Research, 3(6), 1-5 p.
9. Koshmatovich J. R. G. Qayumova. 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(D7), p. 229-233.
11. Jamolov Rapikjon Kushmatovich. G. Qayumova. "The role of bee pollination in Uzbekistan and its role in increasing productivity." Pedagogs Journal 12.2 (2022): p. 176-179.
12. Jamolov, R., To'rayev, O., Azizov, R. (2022). Maturation and change of sperm seed depending on the age of male bees reared in mountainous and sub-mountainous regions of Fergana region. Science and innovation, 1(D8), 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., 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(D7), p. 666-671.
16. Jamolov, R. Q., Nuraddinova, M. A., & Azizov, R. O. (2023, March). Ona asalarining eksterer va interver ko ‘rsatkichlari. In *Proceedings of International Conference on Modern Science and Scientific Studies* (Vol. 2, No. 3, pp. 50-54).
17. Jamolov, R. Q., Qayumova, G. A., & Azizov, R. O. (2023, March). Asalarilar nishining tuzilishi. In *Proceedings of International Conference on Modern Science and Scientific Studies* (Vol. 2, No. 3, pp. 44-49).