

ZOOHYGIENIC REQUIREMENTS FOR KEEPING BEES

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Abstract. *Beekeeping is ultimately a rewarding, profitable and interesting industry. The main beekeeping products are honey, wax, propolis and bee milk, which are always in great demand among the people. Honey is highly valued for its nutritional value, wax and propolis are used in medicine and veterinary medicine. Bees help pollinate more than 100 species of plants and fruit trees. The yield of sunflower, cotton, buckwheat, and alfalfa increases by 20-30%.*

Keywords: *bees, queen bees, males, polymorphism, honey collection.*

Introduction

Composition of a bee family. The life of a bee family is extremely complex and has its own characteristics. Each family member performs a specific task. Accordingly, in each colony there is a female bee, a worker bee and a male bee. They differ from each other in size, body structure and physiological characteristics. This feature is called polymorphism.

Polymorphism usually occurs as a result of each individual performing a specific task in a family [1]. In other words, the distribution of upcoming work directly depends on all their morphological differences.

A honeybee colony is a single biological economic unit, and neither the male, queen, nor worker bees can perform their duties if they are separated from their colony. They can work in certain relationships with each other.

The life and activities of honey bees are closely related to the external environment. Their food collection, reproduction, vitality, growth and development are also related to the external environment.

Queen bees. These are the only individuals in the family with well-developed genitals. She does nothing but lay eggs. The body is long and slender, length 20-25 mm, weight about 0.2 g. The abdomen is longer than the wings, the two hind legs do not have baskets for collecting pollen.

Workers, male and young female queen bees emerge from eggs laid by the *queen bees*. Two queen bees can never live together, and a fight begins between them, and only the strongest remains, and the other flies away from the family. In rare cases, temporary cohabitation of young and old queen bees in the same colony has been observed. on a rotational basis.

The lifespan of queen bees is 5 years, and after 2 years the number of eggs laid begins to decrease. Mostly worker bees are born from the eggs. The clutch of unfertilized eggs begins to increase due to the aging of the mother, and males are born from them, so keeping queen bees for more than 2 years is not effective. Replacing them with a young mother bee from a colony with high productivity gives good results.

The body of *male bees* is larger than that of workers, has the shape of a cylinder, length 15-17 mm, weight 2.2 g. The eyes are relatively large and complex, located close to each other on the top of the head. The mustache consists of 13 segments. They will not have niche equipment.[2] There will be no wax mirrors in her belly and flower baskets for dust at her feet.

One of the tasks of *male bees* is to raise the queen bee. Males appear in the spring before leaving for a new family. In one family their number can range from several hundred to several thousand. They eat ready-made food - honey. In some cases, worker bees feed them with their horn. After the end of the honey harvest season, the worker bees push the male bees out of the colony, and they die of hunger and cold outside. That's why they are called truten gratuitous.

Worker bees are the main part of the colony. In the summer months, the number of bees reaches 3000-4000 bees per colony, and in some strong bee colonies - 80,000-100,000. Worker bees are queen bees with underdeveloped reproductive organs. Therefore, the male is unable to mate with the bees. In some cases, if worker bees lay eggs, only males are born from those eggs.

Worker bees are 12-14 mm long, weigh about 0.1 g, live 5-6 weeks in summer and several months in winter. Worker bees perform several different tasks within a colony. In particular, it collects nectar, pollen and water, produces honey from nectar and raises the young generation, makes home cells from wax, and guards the nest. Accordingly, some changes occur in their body, for example, the presence of a wax window in the abdomen, the presence of baskets for collecting pollen on the hind legs. Collect and process it.

Literature review and research methodology

Preparing bees for a bee colony is carried out in the summer months. In order to conduct a bee colony without loss and with high quality, pay attention to the following:

1. Replenishment of the family with new, young and strong bees that appeared at the end of summer;
2. If queen bees have been used for two years, replace;
3. Leave at least 25 kg of honey in the hive (in 4-5 frames) so that the bees can work actively from winter to spring;
4. Maintaining air temperature and moderate humidity in the hive.

Additional food: add 3 kg of sugar to 3 liters of water, mix, put on fire, but do not boil, then cool and pour into the hive at night to protect against bee theft [3].

Collecting honey from a hive. It is mainly collected in the summer months; on average, up to 50 kg of honey can be obtained from one hive.

Enemies of bees. Caucasian representatives of wasps, ants, wasps, mice, wax moths and cultivated bees steal honey from other nests.

Discussion

Basic rules for working with bees. The gathering place for bee colonies is placed near places where there are a lot of flowering plants. If you move only 1.5 km away from such a place, the productivity of the bee colony will sharply decrease. It should also be noted that she should not cross the path of other bees, otherwise they will fight each other and become weak[5]. One family should have 30-40 square meters of land. The place where the Apiary will be placed should be close to the pond and well protected from the wind. The blooming period of the flowering plant and how long it will bloom are also taken into account. In a place where there is good food, a hive can contain up to 130-150 bee families.

Result

Before looking at the bees, the caregiver washes them well, the smell of perfume, incense, onions, garlic, onions, sweat and vodka makes the bees bitter. A white robe and mask are put on over light-colored clothing. Bees are not kept at the side of the hive [4]. Looking at the hive will temporarily prevent the bees from working. The viewing will take place in the afternoon. In windy weather and low temperatures, you must wait until the temperature in the nest is disturbed. (It is better that it is above 15-16 degrees.) Before entering the room, blow smoke from the fireplace towards the window twice. Do not make sudden movements with the removed frame, do not shake it with your hands, this will anger the bees. The hive should be dry, warm, well ventilated, and able to support bees well in winter.

Summary

Compliance with zoonotic requirements when keeping bees will increase their productivity. In addition to honey, which is the main product of beekeeping, a large income from

beekeeping can be obtained by raising a new young colony and collecting pollen, royal jelly, propolis and bee venom.

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