



**MEASURES FOR THE PREVENTION OF DISEASES CAUSED BY DISORDERS OF BEE
NUTRITION AND FEEDING CONDITIONS**

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Annotation

This article describes the analysis of scientific sources on the causes of non-communicable diseases caused by violations of the most common feeding, feeding and development conditions in beekeeping, as well as treatment and prevention measures.

Annotatsiya

Ushbu maqolada asalarichilikdan ko'p uchraydigan oziqlantirish, boqish va rivojlantirish sharoitlarini buzilishidan kelib chiqadigan yuqumsiz kasalliklarni sabablarini hamda davolash va oldini olish chora tadbirlari to'g'risidagi ilmiy manbalar tahlili bayon atilgan.

Аннотации

В статье представлен анализ научных источников о причинах неинфекционных заболеваний, вызванных нарушением наиболее распространенных условий кормления, кормления и развития пчеловодства, а также лечебно-профилактических мероприятий.

Keywords: bees, feed, hypovitaminosis, winter, syrup, carbohydrate, protein, perga.

Kalit so'zlar: Asalari, ozuqa, gipovitaminoz, qishlov, sirop, uglevod, oqsil, perga.

Ключевые слова: пчелы, корм, гиповитаминоз, зима, сироп, углевод, белок, перга.

Relevance of the Topic

Nutrients are very important for the normal growth and development of a bee family. Unlike farm animals, bees only store food for themselves. It is noteworthy that bees are accustomed to saving food and spending less during its evolutionary development. It is this feature of theirs that ensures the constant development of the family and the high yield of the family. Many non-communicable diseases of bees are caused by poor feeding and feeding conditions. Failure to provide quality food to bees in the winter can lead to weakening or death of the family.



Early detection of these problems in beekeeping is one of the most pressing issues in the field of veterinary medicine in the diagnosis, development and implementation of measures to eliminate them.

Research Results

Providing the bee family with quality food will keep the bee family strong and allow large amounts of honey to be collected during the main honey collection period. From the first months of autumn, bee colonies can be fed with sugar syrup to replenish food reserves for their families. However, this method is labor-intensive, so it is advisable to leave a certain amount of honey for bee families going to winter. Conversely, if a family going to winter does not get enough food, or if the food is of poor quality, the lack of protein, carbohydrates, fats, minerals, vitamins, and water in the diet can lead to the death or weakening of bees.

For the normal development of the bee family in the spring, each bee family needs 10-14 kg of food. In order for them to grow and function, and to live a normal life, they must have protein, nutrients, carbohydrates, minerals, and vitamins. Otherwise, bees will suffer from carbohydrate deficiency, protein dystrophy, hypovitaminosis and many other diseases.

Carbohydrate deficiency (starvation)

Is a disease of carbohydrate nutrition that causes mass death of bees. Hunger can occur at different times of the year. In starving bees, the sugar content in the hemolymph drops sharply, the bees lose their ability to fly, become immobile and die, and the middle abdomen quickly and vigorously loses its function. When the bee family has less than 8 kg of feed, the internal work slows down, the queen's fertilization decreases, the family development slows down and the bees begin to die. The famine begins when the family has 1 kg of honey left. A characteristic feature of starvation is the mass death of the family, in which the bee's head is inside the cell, half of the body or completely outside the cell. The mother bee is fed to the end. The mother bee's body can be seen on other bodies.

Treatment and Prevention

As soon as the disease is detected, the bees are fed with quality honey. To do this, put frames with quality honey in a healthy hive or fed with thick sugar syrup (2: 1). The syrup is heated to 30-35 ° C before serving. The syrup is also given by rods. In order to prevent mass death of bees from starvation, it is necessary to constantly monitor the amount of food in each hive, providing additional feed during the crystallization. Each bee family should have 18-25 kg of quality honey in the winter.

Protein Dystrophy

Is a non-communicable disease caused by a lack of protein. Bees and bee larvae are in high demand for 10 amino acids in protein. One larva needs 125-185 mg of perga for normal development, which means 25-27 mg of protein feed. When this nutrient is lacking, the body uses its own protein. When the bee family is housed in warm rooms, there is always a lack of protein. The bees move slowly and become small. Seed development is prolonged and the queen lays fewer seeds, many nests are left empty, and



sparse seeds are covered with weeds, and the larvae become thinner. Undeveloped larvae and bees are expelled by healthy bees, and weak bees die within 5-7 days.

Treatment and Prevention Measures

To treat the disease, the bee family is fed with pollen and perga. In their absence, the protein allowed in the Republic of Uzbekistan is added to sugar syrup in the amount of 2-10%, or in the form of sugar in a 500 g gauze or plastic bag and placed on the frames. To prevent protein dystrophy, the protein diet should be normalized and, if necessary, the use of sugar syrup should not be more than 1 km from the beehive. Place at least 2 perga in each beehive, use no more than 5-7 kg of high quality sugar per bee family, and take into account the amount of perga.

Hypovitaminosis

Lack of minerals in the metabolism of bees can lead to disruption of physiological processes and even death. In addition, minerals and vitamins that accelerate the development of the bee family are important to ensure that the bee family grows during the early spring when the pollen is not enough. Enrichment of bee feed with macro and micronutrients gives good results. Because vitamin and mineral supplements contain more than 20 minerals necessary for the body, it activates the metabolic processes in the body of bees.

Treatment and Prevention

Wita-MAX permix is used to supplement the bees with mineral nutrients in order to develop their bee colonies in early spring and get more produce from them. By the time of the main honey harvest, bee colonies will be able to produce large numbers of young bees. These supplements are recommended for all personal helpers and farmers specializing in beekeeping.

Violation of bee feeding conditions can lead to food poisoning. When there is not enough food, the bees go hungry. The following non-communicable diseases are classified as poisoning:

- Chemical pest control of agricultural pests;
- Poisoning from black honey (ie, succulent feces secreted by pests of agricultural plants);
- Poisoning from juice and pollen, ie poisoning from plants whose juice and pollen are poisonous;
- Consumption of too much or too little salt in Osh can lead to salt poisoning.

Veterinary and sanitary rules in the feeding of bees. It is recommended to place the apiary in a dry area, 500 m from highways and railways, 5 km from candy factories, sugar factories and livestock farms. One beehive is designed to house bee colonies, depending on the richness of the succulent plants that grow in the area. The distance between the hives should be 3-3.5 m, and the distance between the rows of hives should be 2 m.

The barn will be equipped with a control scale and a water tank. A garbage pit will be dug in the barn, where sewage and washing water will be built, and a separate toilet will be built. In addition, warehouses will be built in any beehive, where beehives will be stored. In the apiary, each bee family is



provided with a beehive, equipment, and special clothing. The beehive should have at least 10-15% of additional beehives.

Conclusions

Diseases caused by the deterioration of the conditions of feeding, feeding and development of beekeeping in our country also have a significant negative impact on the rapid development of beekeeping. Proper nutrition, especially for beekeepers, can prevent many non-communicable diseases. Otherwise, the most common carbohydrate and protein deficiencies in beekeeping will result in poisoning and cause significant economic damage to beekeeping. Therefore, the development and implementation of modern methods of early detection, treatment and prevention of these diseases is of great practical importance.

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