



LITTLE CHARACTERISTICS OF BEES DISTRIBUTED IN THE CONDITIONS OF THE FERGANA VALLEY

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Abstract

Radical improvement of the management system of beekeeping in the Republic of Uzbekistan, organization of breeding work in the industry on a scientific basis, increasing the efficiency of beekeeping, further increasing the volume and variety of honey production, the introduction of modern technologies for honey processing, application of best practices in beekeeping in all regions is one of the main tasks of today.

Keywords: Beekeeping, breeding, honey, beeswax, pollen, propolis, bee milk, bees, native bees, population, productive, fertile, winter hardy, worker bees.

Introduction

The natural climatic conditions of Uzbekistan have favourable conditions for increasing the productivity of agricultural crops, feeding bee families based on modern advanced technologies and increasing the production of beekeeping products [1].

Bee products include honey, beeswax, pollen, propolis, bee's milk and venom, which are very important raw materials for human health, medicine and the pharmaceutical industry. In nature, too, no other animal can replace bees in coordinating their ecological state. Also, the yield of bee-pollinated agricultural crops is much higher [2,3].

By increasing the number of bee families, the biodiversity of plants will be preserved, sustainable use of nature will be established, the population living in



the foothills and mountain villages will be employed, rare plant species will be preserved, the ecological situation will improve, and plants will be pollinated.

Today, the number of beekeepers registered in the Fergana region by the Association of Beekeepers is more than 800. There are also 6 breeding farms, 1 application based on American technologies. Get 20-30 kg of honey, 3-5 kg of pollen, 2-3 kg of perga, 200-300 g of propolis, 300-500 g of bee milk, 4-6 g of bee venom, 3-4 kg of wax from 1 bee family per season possible.

Our country differs from other countries by its warm climate and the abundance of serasal plant species, which, in turn, plays an important role in the development of the industry. It is possible to increase the number of bee families in the country to 200-250 thousand [4,5].

Based on the above, it is important to develop prospects for the development of beekeeping in the Fergana Valley through a planned organization and a scientific approach to the field.

Materials and Methods

Bees are rich in species, which indicates that they are quick to adapt to different conditions. *Apis mellifera* are true honey-collecting bees (Central Russian or European black bees) that live in the forest zone of Russia. This species is also found in Europe (France, England and elsewhere).

Species of bees also differ from each other in biological characteristics. Southern (Caucasian, Italian) species and mountain bees are also somewhat milder than northern species. But of the southern bees, the yellow bee species that live in Cyprus is a diverse species that is very difficult to feed. The average Russian and Italian bee can create 6 new families with a copy. Caucasian yellow bees create 12 families. In the family of Caucasian bees, two queen bees can live side by side [6].

Distinctive features of bee species - first of all, the structure of the front wing of bees and the fact that the wings are pulled by stakes vary. The body of northern bees is larger than that of southern bees. Southern bees build hives smaller than northern bees. The abdomen of northern bee species consists of brown, yellow cases, yellow rings in the 1st and 2nd ring segments. The abdomen of northern bee species is covered with 0.5 mm of feathers, while that of southern bee species is covered with 0.3 mm of feathers [7-13].



During our research, the life and development of bees were organized in different areas of the Fergana Valley on an experimental basis in beekeeping farms, homes, orchards and cotton agrocenoses. Observations on the seasonal development, biology and ecology of bees and practical experiments on the organization of individual individuals were conducted.

During the observation of bees, special attention was paid to their development, habitat and adaptation to different environmental conditions. In the world of beekeeping, no bee species have been artificially created so far, and each region has its bee species and populations adapted to its geographical location and climatic conditions [12-21]. Such bee breeds differ sharply from bees acclimatized in other regions with their morphological features and useful economic characteristics.

Middle Russian breed - from Central and Central Europe. Its evolution took place in relatively cold climates, so it is distinguished by the fact that this breed is adapted to bee conditions and can withstand the cold. These characters are formed by natural selection. Middle Russian bees are more resistant to certain diseases (nosematosis, European rot disease, aphids toxicosis) than other breeds. Spring development of bee families begins a little later than in the Caucasus and Ukrainian bees. During the intensive development of the bee family, female bees lay 2,000 or more eggs a day under favourable conditions.

Caucasus mountain brown breed - natural area Mountainous and mountainous regions of the Caucasus. Bees of this breed are more efficient in finding sources of honey collection, passing quickly from one honey-bearing plant to another. The transition of honey to the collection of honey in the first place allows them to collect a relatively large amount of honey, even when the nectar is low. Caucasian yellow bee breed - this breed is bred in the North Caucasus. Adapted to mild, warm climates. In the northern districts, it is worse than wintering. Roy is eager to break up (on the street), steals honey, is not bad-tempered [22-25]. Seals the honey with a black damp «stamp». The mother bee is not an egg, but it is much taller than the Caucasian mountain ash breed. More yellow in body colour. The length of the hose ranged from 6.5 to 6.9 mm, and the conditional length of the third target was 4.7 mm. The average weight of a fertilized queen bee is 200 mg.



Ukrainian desert breed - distributed in the desert and southern regions of Ukraine. More resistant to winter. It is more resistant to several diseases (nosematosis and European rot) than Caucasian bees and is more resistant. Can use the collected honey relatively strongly. The mother bee lays between 1800 and 1900 eggs per day during the peak development period.

The Kraina bee breed is the first habitat of these bees in the southeastern regions of the Alps, Yugoslavia and Australia. It is now common in most countries around the world, as well as in our country. They are close to Carpathian bees with the same signs, while Caucasian mountain bells with other signs are close. More resistant to winter than the Caucasian breed, but more hardy than the average Russian bee, peace-loving. The syrup is very resistant to toxicosis compared to other bee species. The spring development of the family begins, lasts, and ends over a long period, so the Kraina bees collect the honey collected in time in nature more efficiently than other bees.

The Italian bee breed originated in Italy and is currently the most common breed in the world. In our country, these bees, especially their hybrids, are successfully propagated in the Central Asian Republics, these bees are more resistant to winter, but this feature can be significantly improved when breeding. For example, specially selected Italian breeds are being successfully bred in Finland.

Local bee breed - local bee breed is a breed of the local population adapted to the hot climate and honey collection conditions of the Republic of Uzbekistan for many years. These bees are among the most imported bees in terms of their productivity, fertility, winter hardiness and ability to adapt quickly to any hot weather. Indigenous bees have been formed by natural selection over many years to a specific climate. Indigenous bees differ sharply from other breeds in their growth and development. In particular, the weight of working bees of local bees is 100-110 mg, the weight of unfertilized mother bees is 190-195 mg, and the weight of fertilized bees is 215-225 mg. The colour is dark grey, with noticeable light yellows on the abdominal rings. The hose of worker bees ranges from 6.5 to 6.8 mm in length.



The bees of the local population in the republic now belong to the type of long-hive bees. One of his characteristic traits is that he is gentle, peaceful, keeps himself free when family care is taken and does not try to bite.

Another characteristic feature of bees in the local population is that they work in the field at any low temperature, in the morning when the temperature is low, they start working before sunrise and work until late at night, even on hot moonlit nights depending on the moonlight. The accumulation of syrup between the rows has been observed many times. During the period of sap collection from the plants, it can adapt quickly to the second plant. Particularly in desert areas, bees of the Carpathian and Middle Russian breeds, which collect beeswax and pollen from plants such as whitefish, whitefly and sagebrush, adapt slowly to these plants and collect less honey.

The bees of the local population are placed in the rum cells by filling them with honey, i.e. in a wet state. There is no space left between the honey in the jar and its lid, so it looks dark and wet when viewed from the outside. During honey collection, the bees in the rum first try to place the honey around the place where the brood is located, and then along the lower part of the rum. Therefore, during the main honey collection period, the mother bees naturally lay eggs and feed the young bee offspring a little. During the season, the migration trays are less elongated, usually, their number does not exceed 20-25. Less prone to migration, no more than 5-7%. The feature of quietly replacing old queen bees during the main honey collection period is strong.

Local bees overwinter well and consume less food even in adverse weather conditions in Uzbekistan. Resistant to disease and less likely to die during the winter.

Conclusion

In short, the bees of the local population in the Republic are gentle, peace-loving, free in the care of the family and do not try to bite; Another characteristic is that they work in the field in any low temperature, in the morning when the temperature is low, they start working before sunrise and work until late at night, even on hot moonlit nights, depending on the moonlight. The accumulation of sap developed between the rows has been observed many times. In the changing climate of Uzbekistan, it winters well even in inclement weather and consumes less food. Resistant to disease and less likely to die during the winter.



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