

## BEE BREEDS IN THE FERGANA VALLEY

Jamolov Rapikjon Kushmatovich,

Joint Faculty of Agriculture, Fergana State University teacher

Azizov Rakhmatillo Olimjon ugli

2 nd Year Student of the Fergana State University of the Republic Uzbekistan.

### Abstract:

In world beekeeping, no bee breed has been artificially created so far, each region has its own bee breeds and populations adapted to its geographical location and climatic conditions. Such bee breeds differ sharply from bees acclimatized in other areas by their morphological characteristics and beneficial economic properties.

**Keywords:** Fergana Valley, beekeeping, bees, bee breeds, Central Russian bees, natural selection, local bees.

### Introduction:

In order to get to know the life of a bee family perfectly, the beekeeper must know the life of each bee species that makes up the family. All vital activities of the bee family are related to the anatomical and physiological characteristics of the mother bee, worker and male bees. Therefore, if you understand the laws of bee family living together through deep knowledge of bee biology and anatomy, it will be of great importance in the development of beekeeping experience. The Central Russian breed originates from Central Central Europe. Its evolution took place in relatively cold climatic conditions, due to which this breed is adapted to the conditions of bees and differs in being able to withstand cold. These traits are formed by natural selection. Middle Russian bees are resistant to some diseases (nozematoses, European rot disease, aphid toxicosis) compared to other breeds. The spring development of bee families starts a little later than Caucasian and Ukrainian bees. During the period of intensive development of the bee family, under favorable conditions, female bees lay 2000 or more eggs in one night.

## Materials and Methods:

Bees are distinguished by their tendency to separate into swarms and move from the swarm state to the worker state with great difficulty. It makes good use of strong mid to late honey harvest. In particular, it is superior to linden and buckwheat, and in making wax it is superior to all bee breeds. When the honey collection begins, first the honey is collected in the upper floor (storehouse) and then in the next floor. Honey white (dry). Middle Russian bees are very angry, the behavior of the hive is very restless, when checking the frames, it falls to the bottom of the frame. Compared to other species of bees, they find new sources of honey later, so they move from plants with low nectar to flowers with high nectar.

The propensity for theft is weak, and it poorly protects the nest from thief bees. The color of the body is dark gray, the conditional width of the third tergites (the distance between their protrusions) is 5 mm, the length of the snout is 5.9-6.4 mm (depending on the geographical latitude of the place). The average weight of the fertilized queen aril is 200-210 mg. These bees differ from other bee breeds in their size.

The Caucasian mountain brown breed is the natural area of the foothills and mountainous regions of the Caucasus. Bees of this breed are very persistent in finding sources of honey collection, they quickly move from one honey-bearing plant to another. The fact that the bees first switch to full honey collection allows them to collect a relatively large amount of honey even in times of low nectar production. is distinguished by its productivity. Compared to Central Russian bees, it makes good use of collected honey from phatselia, polyflora collects collected honey from various grasses. Compared to other breeds, the Caucasian mountain brown is a leguminous plant, especially it pollinates alfalfa well. During the period of rapid development, the productivity of the family does not exceed 1500 eggs per day. It is rarely divided into sections. Easily transitions from sleeping to working. Compared to Central Russian breeds, when bred in the central, northern and eastern regions, it is less resistant to cold, especially when the countryside is poorly organized. Caucasian bees are very sensitive to the mixture of various humus in the winter feed, are more strongly affected by nosematosis and European rot. If the conditions are created, it will pass through the village well even in the regions with a cold climate.

## Results and Discussions:

The behavior of bees is very calm, but they are prone to theft, they protect their nests well. Seals the honey with a black "wet" stamp. The color of the body is gray. The conditional width of the third terget is 4.7 mm, the weight of the fertilized queen bee is about 200 mg. But the length of the bees' horn is different in the breeding districts. Therefore, this character requires selection. Caucasian yellow bee breed - this breed is bred in the North Caucasus. Adapted to mild, warm climatic conditions.

In the northern districts, it passes poorly through the countryside. He has a great desire to separate from the roys (street), he steals honey, he is not a bad guy. Seals the honey with a black wet "stamp". The queen bee is not an egg-laying, but it is far superior to the Caucasian mountain gray breed. His body color is more yellow. The length of the khartoum is from 6.5 to 6.9 mm, the conditional length of the third terget is 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. Very resistant to winter. It can withstand a number of diseases (nosematosis and European rot) and is more resistant than Caucasian bees. Can use the collected honey relatively strongly. The queen bee family lays up to 1800-1900 eggs per day during the period of its strongest development. Bees are eager to separate into swarms (migration), but less so than the middle Russian breeds and easily transition from the swarming state to the worker state. Honeycomb is mostly white (dry).

Aggression is weak, the body is gray compared to the average Russian breed. The length of the khartoum is 6.3-6.6 mm, the conditional length of the third terget is 4.9 mm on average, the weight of the fertilized queen bee is about 200 mg eastern districts, Yugoslavia and Australia. Currently, it is common in most countries of the world, as well as in our country. They are close to the Carpathian bees with the same characteristics, but with other characteristics they are close to the Caucasian mountain brown bees. Compared to the Caucasian breed, it is more resistant to frost, but it is more impatient compared to the Central Russian bees, it is peaceful. Aphids are very resistant to toxicosis compared to other bee breeds. The spring development of the family begins, accelerates, and ends in a timely manner, so Kraina bees collect honey collected in time in nature more

efficiently than other bees. Queen bees are very prolific, laying 1,400-2,000 eggs per day (in the spring period of rapid development). If it is possible to collect even a little honey in the pasture at the end of the spring development, the bees practically do not separate into swarms, and when they do, they are very small (not more than 3%). If there is no honey, up to 30% will be divided into roes, but if countermeasures are applied, they will quickly return to the worker state. Kraina bees are more efficient in quickly searching for food sources, surpassing Caucasian bees in finding good sources.

When the honey collection begins, honey is first collected in the part with the brood, and then in the warehouse. The red bee pollinates better than the Central Russian breeds, but the baborada is far behind the Caucasian bees. The color of the body is gray, the color is silver, the length of the horn is 6.46.8 mm, the conditional width of the third tergite is 4.8 mm, the weight of the fertilized queen bee is 205 mg.

Local bee breed - local bee breed is a breed of the local population that has adapted to the hot climate and honey collection conditions of the Republic of Uzbekistan for many years. These bees are among the populations that can quickly adapt to any hot weather and are more productive than other imported bees. Local bees have been shaped by natural selection over many years to their specific climate. Domestic bees differ sharply from other breeds in their growth and development. In particular, worker bees of local bees weigh 100-110 mg, unfertilized queen bees weigh 190-195 mg, and fertilized ones weigh 215-225 mg. The color is dark gray with prominent pale yellow on the abdominal rings. The proboscis of worker bees is 6.5 to 6.8 mm long. Bees in the local population in the republic are currently long-nosed bees. One of its characteristic features is that it is docile, peace-loving, it keeps itself free when it is taken care of in the family and does not try to sting. Another characteristic feature of the bees in the local population is that they work in the field even in any low temperature weather, even if the temperature is low in the morning, even before sunrise. starts working and works until dark, even on warm moonlit nights, it has been observed many times that it gathers honey between the rows of cotton according to the waxing of the moon, i.e. places it in a wet state. In this case, there is no space between the honey in the cell and its lid, so it looks dark wet when viewed from the outside.

During the honey collection period, bees in the frame first try to deposit honey around the brood area, and then along the bottom of the frame. Therefore, during the main honey collection period, the mother bees naturally lay eggs and feed the young bees. During the season, the tree rarely stretches its plates, usually their number does not exceed 20-25. It is less prone to separation, does not exceed 5-7%. During the main honey collection period, there is a strong tendency to replace old queen bees peacefully.

## Conclusion:

Local bees winter well in the changing climate of Uzbekistan, even when the weather is unfavorable, and consume less feed. It is resistant to diseases and rarely dies in the winter.

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