



**ASSESSMENT OF BEE FAMILIES IN THE LOCAL POPULATION AND THEIR  
DEVELOPMENT PARAMETERS**

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**ANNOTATION**

This article analyzes the evaluation of bee colonies in the local population and their development parameters. Colony strength, queen egg-laying activity, brood development, and productivity were studied. The results help to identify the development characteristics of bee colonies under local conditions.

**Keywords:** local bee population, bee colony, beekeeping, biological development, productivity, selection, evaluation methods, development parameter

**INTRODUCTION**

In order to rapidly develop the beekeeping sector and carry out breeding work, bee colony certification is of great importance. In accordance with the Resolutions of the President of the Republic of Uzbekistan No. PQ-3327 dated October 16, 2017 "On measures for the further development of the beekeeping industry in our republic", the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. VMQ-239 dated June 12, 2023, and in 2021-2022, 20 bee colonies in the beekeeping field test site were individually inspected, evaluated, and certified. Similar experiments were conducted on bees that were transferred to the "Nektar Almatov" beekeeping experimental farm located in the Sherobod district of the Surkhandarya region.

In order to obtain information about the productivity of the colony when classifying bees, the honey and wax productivity of the colony, which has been recorded in the apiary journal for many years, the characteristics of migration, the level of egg laying of the queen bees, the winter hardiness of the colony, peace-loving nature, the health of the colony and all the signs of this local breed were taken into account. When determining the honey productivity of the colony, the commercial honey and food honey collected by the colony during the year were taken into account. The wax productivity of the colony was calculated and evaluated based on newly woven honeycomb frames. The main purpose of bee colony breeding is to study and evaluate the economic and useful properties of the colony, its characteristics, productivity and breeding qualities. When conducting experiments for selection and breeding work, it allows you to select bee colonies with rare breeding abilities. During the beekeeping certification period, firstly, the bee colony is evaluated, that is, the quality of the colony and its productivity are assessed, and secondly, the queen bees in the colony are evaluated, taking into account the ability of the queen bees to lay eggs and giving them an appropriate rating. Based on the conducted research, the economic useful properties of the bee colony were directly studied and, by analyzing them based on zootechnical records in the apiary journal, they were comprehensively evaluated, the breeding value was determined, and the corresponding class

categories were determined. Table 1 below presents the results of the assessment of bees of the “Nektar Almamatov” beekeeping experimental farm.

**1- table****Results of the beekeeping assessment in the apiary**

Study location	Winter hardiness	Spring development	Migratory	Peace-loving	Fertility of queen bees	Productivity	Breeding score	Overall score
“Nektar Almamatov” beekeeping experimental farm	4.0	5.0	3.0	4.0	5.2	5.0	4.3	30.5

Table 1 shows, the results of the assessment of the apiaries of the “Nektar Almamatov” beekeeping experimental farm located in the Sherobod district of Surkhandarya region are 30.5 points, in which only the fertility of queen bees and the breeding assessment are significantly affected.

It is the main indicator that is of great importance in transferring the farm to the breeding category. Therefore, as a result of the strict grading rules, the beecolonies of the “Nektar Almamatov” beekeeping experimental farm achieved 25 kg of commercial honey from each bee colony in 2025, each bee colony built 3.5 new frames, and the production of wax per colony reached 0.530 kg.

**CONCLUSION**

All this indicates that the main goal set in the selection and evaluation of the bee colony has been achieved and that they are of great importance.

No bee breed has yet been artificially created in world beekeeping, but each region has its own bee populations, adapted to its specific geographical location and natural climatic conditions. Such bee populations differ sharply in their biological, morphological characteristics and economic benefits from bees acclimatized in other regions.

Taking this into account, the morphological characteristics of the local bee population, which has been acclimatizing for centuries in the territory of our republic, and their economically benefits were studied.

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