

BEE PESTS IN THE FERGANA VALLEY

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Annotation: This article describes the main bee pests in the Fergana Valley, their growing influence on apiaries, contributing factors, control measures, current conditions, and promising solutions. Negative factors affecting beekeeping include agricultural activities, improper hive management, climate change, and the lack of sufficient biological control measures, which occupies a significant place among the challenges.

Introduction . The Fergana Valley in Uzbekistan is one of the most densely populated regions, where rural life and farming are well developed. Beekeeping has long been practiced here, as natural conditions and plant diversity create a favorable environment. However, in recent years bee mortality, decreased fertility, and an increase in diseases and pests have been observed, leading to noticeable problems at the farm level

Fergana Valley is experiencing major pests

In the Fergana Valley, under current circumstances, the most dangerous pests for bees are the following:

- **Varroa destructor (varroa mite)** – attaches to the body of bees and brood, sucking their hemolymph. This weakens the bees and increases their susceptibility to infections.
- **Aethina tumida (small hive beetle)** – the beetle lays eggs in the hive; its larvae damage wax combs, honey, and bee bread inside the nest.
- **Galleria mellonella (Linnaeus, 1758), Greater wax moth, and Achroia grisella (Fabricius, 1794), Lesser wax moth** – their larvae consume the nest structure, honeycombs, and wax.

2. Pests spread cause is happening factors

- **Climate change** – temperature fluctuations and increased humidity create a comfortable environment for pest development.
- **Incorrect use of chemical tools (pesticides)** – agricultural pesticides used in villages and farms often harm not only pests but also bees themselves.
- **Weak biological control measures** – many beekeepers still use outdated methods and lack environmentally friendly tools and modern approaches to pest control.

3. Recommendation of achievable control methods

- Use **environmentally safe products** against Varroa (for example, tobacco dust or other plant-based powders).
- Maintain **high-quality and resistant bee breeds**, ensuring proper care of the queen bee.
- Conduct **regular sanitary control of the nest**: timely cleaning, hive maintenance, and

separation or treatment of sick colonies.

- Install **pest monitoring systems**, especially using pheromone traps for situational control.

Conclusion. Under current circumstances, beekeeping in the Fergana Valley is developing while facing pests and diseases, and effective control is crucial. Therefore, modern environmentally friendly pest control methods, continuous monitoring, and beekeeper training are essential to prevent negative consequences. Current scientific and technical approaches in beekeeping are necessary to further develop this field toward its goals.

Used literature :

1. . Khabibullaev F.N. In the world of bees . Practical recommendations. – Fergana , "FGU Nuskha " multiplication department " , 2024. 52 p.
2. Khabibullaev, FN . Fergana Valley: Bee Family, Typical Biology // Food Security: Global and National Issues Collection of scientific papers of the V international scientific and practical conference. Samarkand , 2023 , October 13-14, pp. 121-124 .