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SMALL FLOUR MITE (TRIBOLIUM CONFUSUM DUV) AND MEASURES TO COMBAT IT

Murodov Baqojon Egamberdiyevich
O‘simliklar karantini va himoyasi ilmiy-tadqiqot
Instituti laboratoriya mudiri, b.f.d.

Qodirov Nodir Qodir o‘g‘li
O‘simliklar karantini va himoyasi ilmiy-tadqiqot
instituti tayanch doktoranti

Shaymanov Mashrabjon Shukriddin o‘g‘li
O‘simliklar karantini va himoyasi ilmiy-tadqiqot
Instituti kichik ilmiy xodimi.

Abstract
This paper presents the results of a laboratory breeding to study the development of the small flour beetle, that causes damage to agricultural products stored in warehouses.

Keywords: Warehouse, pest, agricultural product, larva, fungus, beetle, laboratory, optimal conditions.

Introduction

Kichik un mitasi (*Tribolium confusum Duv*)grain products are scattered in warehouses, elevators, mills, pasta and confectionery factories, buildings where people live, and elsewhere; Jump to search Hard-winged *(Coleoptera)*Leaves of the genus (*chrysomelidae*)to the family, belonging. Among the representatives of the class of birds and mammals, there are also Warehouse pests. Warehouse pests are common throughout the Earth. From barn pests, small flour mites cause significant damage. Smaller of these, the flour mite (Tribolium confusum Duv.), is a dangerous pest of flour products. Warehouse pests destroy food stocks, eat grain crust and flour, as a result of which grain and other long-term storage, impair their nutritional quality, damage seeds and sharply reduce productivity.

From Wikipedia, the free encyclopedia It is one of the most common pests of the barn that damage the reserves of grain, flour and flour products, as well as dried fruits. It is one of the most common and deadliest insect pests for stored dry food [p. 1:146].

Beetles and larvae Flour, better coarse flour, bran, semolina, less often buckwheat, Rice, fruits It does damage. If the damage is strong, the flour will turn out to be in pieces, smell foul, and become unsuitable for food. Unpleasant odor is caused not only by the beetles themselves, but also by their feces, and especially the corpses of dead insects. Also, the presence of beetles can lead to the appearance of mold on products [3].

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Small flour myth, especially, inIt causes great damage , it develops there year-round and nests into various mechanisms that are difficult to clean. The pest easily tolerates vibration, so it lives inside roller machines, flour lines, drills, and other equipment [2; p. 9].

The equipment is first mechanically cleaned and the building is sealed. Fumigation is used to combat the small flour beetle [4].

To reduce the damage of small flour mites, to develop measures to combat it, a full study of the developmental characteristics of the pest is required.

Research materials and methods

Entomological calculations were carried out according to the methods of Sh.T.Khuzhaev, Kh.K.Kimsanbaev, B.E. Murodov and observations were carried out by methods V.Yakhontov, G.Ya.Bey-Bienko.

In conducting the study, 1 and 2 l jars, rubber, airtight fabric, air thermometers, pests-resistant feed products (grain) and laboratory notebooks were used.

Results of the Study

From January 6 to August 1, 2025, in order to increase the number of small flour mites that cause severe damage to warehouse products, laboratory experiments were carried out at the Laboratory of Warehouse Pest Control of the Scientific Institute of Plant Culture and Protection of Plants in Qibrai district of Tashkent region. Numerous observations were made in order to study the stages of development of the small flour mite.

For the most common pests in the laboratory Sároiti, zaxira mahsulot (wheat, corn, beans, peas, bran) was filled with 400 grams in 1 and 2 l jars. Zaxira mahsulotlari filled bankalarni ichiga zaxira zararkunanda (small flour mitasi)laridan 10 units were sold.

The average daily temperature in the laboratory room where the experiment was conducted was +220C.

For the reproduction of barn pests in feed products, jars were used. At the same time, the jar is closed in the mouth with a rubber ring made of airtight fabric. The occurrence among flour-products of the eggs and larvae of the pest is examined under a microscope. At the same time, the lens is enlarged by 10 times and then by 40 times. In all laboratory experiments, the results were recorded in a laboratory notebook. In order not to be infected by another pest from a small flour mita of flour products, clean flour and bran products that have not been contaminated by pests are first used.

To study the multiplication and development of small un-mita in laboratory conditions (temperature 22 °C, 30-35% air humidity), wheat bran in 1- and 2-liter jars, 10 of the beetles (imago of small un-mita) are put into the wheat flour. 30 days after artificial damage of flour products with small flour-mites, the pest larvae emerge from the eggs. After 2-3 weeks of hiatus, the larvae go to the helminth (Fig. 1).

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Figure 1. Stages of development of the small flour myth of zaxira zararkunandasi.

Conclusion

The results obtained indicate that the small flour mite winters in a mature imago (boar) state and, with additional feeding, mates after 6-7 days, and females begin to lay eggs. In the course of development, the egg, the larva, the fungus and the adult young beetle pass through the stages of imago.

It is recommended to carry out the following organizational and economic and preventive measures against small flour mitacin**:**

1. Every year, before receiving a new harvest, the barn, shed, raw materials should be repaired, and the equipment and dishes should be boarded.
2. It is necessary to constantly observe the rules of keeping agricultural products, regularly ventilating the premises so that the humidity does not overgrow.
3. Before placing in the barn, the grain is thoroughly sorted. Damaged ones should be kept separate and used for household needs first.
4. Before accepting the new harvest, the premises of the warehouse, adjacent areas must be thoroughly cleaned of garbage, garbage, various spills and dust, and disinfected with one of the fumigants allowed to be used in Uzbekistan against harmful insects and ditches.

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5. The barn, sites, sheds, containers and products stored in them should be inspected three times a month for the presence of pests.
6. If small flour-mites or other pests are detected, they should be immediately disinfected using one of the fumigants approved for use in Uzbekistan.

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