

## Cotton Sucking Pests and Measures to Combat with Them

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### ABSTRACT

This article describes the morphology, biology and pest control methods of cotton sucking pests.

**KEYWORDS:** *Tetranychus urticae* Koch, UzFEN-20% e.mc., Dalamectin 1.8% e.mc., control

### INTRODUCTION

There are many agricultural crops pests, and some pests species affect plants only at certain development stages.

One of the factors that reduces the agricultural crops yield is pests. Therefore, the plants protection from disease and pests is one of the most pressing issues.

The unique natural climatic conditions of Uzbekistan, as well as the favorable air temperature during the plants growing season allow many pests development. That is why thousands of insects, canals, diseases develop in agricultural crops, which negatively affects the crops quantity and quality.

**Spider mite** (*Tetranychus urticae* Koch) is a fierce and persistent cotton pest. Spiders mite are found in 248 plants species, including 173 weeds species, 38 trees species and shrubs, and 37 cultivated crops species. The mite mainly settles on the back of its leaves, damaging it. The leaf is wrapped with very thin gray spider webs. His name is also named after him. The spider mite enters the cell cavity of the oral apparatus, absorbs the nutrients in it, and feeds on it. On the affected leaves upper side there are light-colored spots, and in severely damaged areas there are brown and reddish spots. Strongly damaged leaves fall off, the plant is stripped and becomes very clumsy.

Spider mite is a class of spiders, belonging to the canals family, with small arthropods, some species. The body is oval, 0.3-0.6 mm in height. Its spring-summer offspring are bluish-yellow, and those that overwinter are orange-red. The two dark spots on his body sides are clearly visible. The female undergoes egg, larva, pronymph, deuteonymph and imago stages in its development. The eggs are round and spherical. The larval, pronymphage, and deuteonympha forms differ in size from the imago. The larva has three pairs of legs, the nymph and four pairs of legs in the imago.

The spider mite develops in 8-12 days in summer (June, July, August), 15-20 days in May, and 25-30 days in March-April. It produces 12 to 20 generations per year, depending on geographical location, weather conditions and the cotton type, from which 8-12 generations are produced in June-August.

**Research materials and methods.** Our experience was carried out in the following scheme on the 7-hectare field area of "Turtkul Abdurashid" farm cluster "Sokhib omad baraka" in Izbaskan district of Andijan region.

1. **Variant. Control: No control was used against cotton spiders mite.**
2. **Variant. Template: UzFEN-20% e.mc.against cotton spider mites.**
3. **Variant. Experiment: Dalamectin against cotton spider mites 1.8% e.mc 0.4 l/ha**

Experiment 3 variant consists of 4 turns, the seeds are sown in the scheme 90x10x1 cotton Andijan-35 variety. The experimental plots are 50 meters long and 7.2 meters wide. The total plots area was 360 m<sup>2</sup>. The total experiment area was 1440 m<sup>2</sup>. 100 plants were selected for calculation from each variant, and phenological observations were made from this plant every 10 days.

The developmental dynamics and harmful properties of the spider mite were observed every 10 days in selected plants.

**Research results.** In our experimental field, UzFen 20% e.mc.0.75 l/ha in the standard variant of antifungal chemicals and in our experimental variant, Dalamectin was 1.8% e.mc.using 0.4 l/ha, during our experiments, the cotton the farm yield was as follows.

In the control variant 26.7 s/ha, in the standard variant 28.6 s/ha, in the control variant 1.9 s/ha, in the experimental variant 32.1 s/ha, in the control variant 5.4 s/ha were obtained.

UzFen, which is included in the plant list protection products approved for use in the Republic of Uzbekistan against spider mites, contains 20% e.mc. 0.75 l/ha and Dalapectin 1.8% e.mc.using chemicals at 0.4 l/ha, we achieved a higher and additional yield than the control.

UzFEN 20% e.mc.against spiders acaricidal use was 71.3%, Dalamectin 1.8% e.mc.when applied insectoacaricide, gave 88.3% biological effect.

In the standard version you can get a net profit of 0.73 kopeck for 1 sum, in the experimental option you can get a net profit of 1.30 kopeck for 1 sum.

In summary, the Dalamectin application against spider mites at 0.8 liters per hectare of 1.8% e.mc.is biologically effective.

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