

CHARACTERISTICS OF SPECIES COMPOSITION AND DISTRIBUTION OF INSECTS

Yuldasheva Shokhista Kobiljonovna

*Candidate of Biological Sciences, Associate Professor, Head of the Department
of Zoology and General Biology, Ferghana State University, Uzbekistan*

E-mail: sh.k.yuldasheva@fdu.uz

Khamidov Abubakir Kodirjon o'g'li

Teacher of Biology, School number 17, Uzbekistan

ANNOTATION

Several types of plant aphids cause damage to cotton, alfalfa, sugar crops, fruit trees and other agricultural crops, causing a sharp decrease in productivity. Today, agrotechnical, biological and mainly chemical control measures are taken against plant saps. Mites are one of the families belonging to the class of arachnids of the arthropod type. Most mites live as parasites on humans, animals and plants. Ticks suck blood in humans and animals and cause the spread of various diseases. In addition, plant-damaging mites have a negative impact on the development and productivity of agricultural crops. In Uzbekistan, plants such as cotton, sugarcane crops, vegetables and garden crops are severely damaged by spider mites and vegetable crops by pests such as rust mites.

The rust mite strongly damages tomatoes, potatoes and eggplants. Leaves, branches and stems of the affected plants dry up. The mite overwinters mainly in greenhouses.

Key words: pest, cotton sap, acacia sap, cabbage sap, apple sap, sweet pear, pear scale, spider mite, agrotechnics, bioecology.

ENTRY

Plant aphids belong to the family of lice of the class of insects. The oral apparatus of these insects is designed as a stinging and sucking type and is adapted to feeding by sucking plant sap. Mouth-sucking hook consists of four blades. These teeth are placed inside the lower lip sheath. Most species of aphids live in swarms on plants. It damages the plants by sucking them. It weakens the plant by sucking cell sap. As a result, it reduces plant productivity. It pollutes the plant body by excreting juicy waste through the sap excretory tubes in the abdomen. Fungi develop in these wastes and cause various diseases.

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MAIN PART

Big cotton juice. Big cotton juice can be found in all regions of our country where cotton is grown. This pest is common in cotton, beans, mung beans, weeds and sorghum.

The body of a large cotton hopper is 2-3.5 mm long. It is bluish or yellowish in all stages of development. A larva is a metamorphosed insect that develops through egg, larva, and adult stages. Wingless and winged versions are available.

The large cotton aphid overwinters in cottonwoods and cypresses. It appears in the cotton in the second half of May. In the summer, it gives birth by parthenogenetic method, and in the fall, it develops sexually by laying eggs. It harms by sucking cotton juice. It reduces productivity and reduces fiber quality.

Acacia juice. Acacia sap is found in all regions of our country where agricultural crops are grown (Fig. 19). This pest can be found in cotton, beans, mung beans, peas, alfalfa, rice crops and other plants.

The body of a live-bearing female is 1.3-2.2 mm long. The body is black. Unlike the female, the male has wings.

Acacia sap (in the egg stage) overwinters in alfalfa or acacia. He leaves the village in March. First, it develops in the alfalfa plant. After the alfalfa is roughed up, it is transferred to other crops. In the second half of May and early June, acacia sap appears in cotton fields, multiplies rapidly and causes serious damage to cotton. As soon as unfavorable conditions arise, it flies to the alfalfa and stays in the alfalfa root neck until late autumn. As soon as it gets cold, mature winged males and females appear. Adult insects die after breeding.

Cabbage juice. Cabbage juice is widespread in all agricultural crops. An adult wingless louse is 2.0-2.15 mm in size, gray-green in color, and has a oozing waxy spot.

Cabbage aphid larvae differ from adult aphids in that they are smaller. The size of the larva of the first age is 0.75 mm. Larvae and adult lice have a slightly thickened middle of the sap tubes.

Eggs are elongated, 0.5 mm in size. Newly laid eggs are green or yellow, later turning black.

Cabbage aphid in Uzbekistan reproduces by egg parthenogenesis in the female or larval stage and winters near the core of cabbage and on plants related to cabbage.

Cabbage sap infects cabbage and other cruciferous plants. When it causes severe damage, it dries up the seedlings. Cabbage juice breeds 15 times in Uzbekistan.

Pear juice. The pear aphid mainly damages the pear. Severely infected leaves become twisted and fall off.

An adult pear aphid is up to 3 mm long. The color is yellowish, light greenish-brown, and there are transverse lines on the belly. The wings of the pear aphid are clear, with a dark spot on the back edge, and the back wings are shorter than the front.

The female is bigger than the male. Males have two dark transverse lines in the lower part of the abdominal joints. Females have 2 round spots. Females have a hanging belly, and males are raised.

The eggs are small and white, turning yellow before the larvae hatch. At one end of the egg there is a hook, and at the other end there is a stem, which clings to the tree branch. The larva is wingless, yellow or green, leaf-shaped. A primary wing is visible in a large larva.

Pear sap hibernates under the bark and on the branches of the pear when it is an adult. Before the tree buds, it mates out of the village and lays its eggs near the buds.

Larvae and adults feed on buds, leaves, flowers and tender branches of pear.

Apple sap is green, sometimes yellow-green, the front half of the thorax of winged lice, the posterior thoracic joints and the tip of the abdomen are black. An adult is 2 mm, pear-shaped. The wingless form of pear juice is 2.9 mm, and the winged one is 2.2 mm. Its color is dark brown, it has wingsless and has a yellow color. The mustache is yellow, the tip of the belly and the sap tubes are black. A winged louse has a black mid-breast. Sap tubes are black. There are pink stripes on the upper part of the leg. Its body is elongated and resembles a mosquito. The eggs of all aphids are black, oblong and shiny.

Aphids overwinter in the egg stage on young branches of the tree. In the spring, when tree buds are forming, larvae hatch from the eggs and first feed on the swollen buds, then on the sap of leaves and flowers. Aphids curl the leaves. Females give birth to 50 live births in summer and 20-30 live births in summer.

Measures to fight against plant aphids. Agrotechnical, biological, and mostly chemical control measures are taken against plant saps.

After the harvest of agricultural crops, measures such as removal of plant residues from the field, deep plowing of the land, and proper rotation of crops reduce the number of pests.

In nature, the number of plant aphids is limited to a certain extent by aphidid parasites, mites, golden eyes, predatory mites and disease-causing microorganisms. In the fight against plant aphids, the golden-eyed beneficial insect is bred in the biolaboratories of our country.

In the chemical fight against plant sap: Karate -5% k.e. (concentrate emulsion), 0.5 l/ha, vertimek 1.8% k.e. 0.3-0.5 l/ha, danitol 30% k.e. 0.5-0.7 l/ha, simbush 25% k.e. 0.3 l/ha and one of the pesticides approved for use in the Republic of Uzbekistan and which can be used in the fight against plant aphids is used.

Bed bugs

Mites are one of the families belonging to the class of arachnids of the arthropod type. Mites, unlike other arachnids, do not have jointed bodies. Their heads, chests and abdomens are joined to each other. On the front side of the body, in the head, there is

a stinging and sucking mouth, that is, a mouth. It has four pairs of legs in the adult stage, and three pairs in the larval stage. Most mites live as parasites on humans, animals and plants. Ticks suck blood in humans and animals and cause the spread of various diseases. In addition, plant-damaging mites have a negative impact on the development and productivity of agricultural crops. In Uzbekistan, plants such as cotton, sugarcane crops, vegetables and garden crops are severely damaged by spider mites, and vegetable crops (tomatoes, potatoes, etc.) by pests such as rust mites.

The spider mite is a serious pest of cotton and other agricultural crops and damages about 250 plants. In addition to cotton, the spider mite causes serious damage to crops such as garden, rice, and vegetables. Among agricultural crops, it rarely damages grain crops. It does not harm the field from wild weeds.

Spider mites are widespread in all regions of Uzbekistan. The size of the male is 0.2-0.3 mm, and the size of the female is 0.4-0.6 mm. Blue-yellow in summer, reddish in early spring and fall. A spider mite develops through egg, larva, nymph and adult mite stages.

Larvae have 3 pairs of legs, nymphs and adult mites have 4 pairs of legs. On the back of the spider mite there are 7 rows of 26 hairs. The adult spider mite, larvae and nymphs cause damage by sucking plant sap. They are especially abundant on the back side of the leaf. To identify a spider mite, an infected leaf is removed, shaken with its back side on a clean paper and examined with a magnifying glass. Spider mites moving in different directions are observed.

Female spider mites overwinter in plant debris and soil cracks. The spider mite leaves the village when the average daily temperature reaches +7 °C, i.e. in March. The general development period lasts 8-30 days, depending on weather conditions. A spider mite gives birth 12-20 times in Central Asia. From this, 8-12 generations develop in the cotton.

Brown fruit mite. The brown fruit mite causes severe damage to fruit trees such as apricots, apples, plums, cherries and cherries.

Brown fruit mite is widespread in Uzbekistan. Leaves infected with this mite turn brown and photosynthesis decreases. The leaves and fruits of the tree become small and fall off before ripening

The size of the female of the brown fruit mite is 0.6 mm, and the size of the male is 0.3 mm. The body is oval in shape and flattened towards the back. The egg is round, 1.5 mm in size. In the egg stage, it hibernates in the bark of the branches of the plant it feeds on, at the base of the buds. In early spring, the larvae feed in the buds. The female brown fruit mite lays 25-90 eggs on leaves and branches. Breeds 3-6 times a year.

Rust mite. The rust mite strongly damages tomatoes, potatoes and eggplants. Leaves, branches and stems of the affected plants dry up. The mite overwinters mainly

in greenhouses. If there are favorable conditions, it develops throughout the year. Transplanted to crops in the open field.

Mites develop well when the temperature is 27-28O C, humidity is 30-40%. In such conditions, one generation develops in 6 days. One female mite lays up to 50 eggs and lives for more than 40 days.

In the coordinated fight against the rust mite, first of all, preventive measures should be implemented. In this case, the soil of greenhouses and greenhouses should be disinfected with chemical preparations before planting crops. After the plants are damaged, it is recommended to use chemical pesticides. Against the spider mite and other mites, mainly agrotechnical, biological and chemical control measures are carried out.

Agrotechnical method. It is possible to prevent spider mites from multiplying, and sometimes to completely eradicate them using agrotechnical control methods.

By successfully applying the agrotechnical control method, it is possible to create unfavorable conditions for the spider mite, and create favorable conditions for the good growth and development of the cotton plant and the reproduction of its predators.

The correct use of agrotechnical measures leads to the prevention of mass reproduction of many harmful insects, except the spider mite, to reduce the level of damage. Such agrotechnical control measures include, among others, such measures as timely implementation of tillage, crop rotation, fertilizing, and irrigation. Good results can also be achieved by giving the plant water. Properly choosing mineral and organic fertilizers for the plant and giving it on a scientific basis increases the plant's resistance to spider mites and other pests.

Potassium and phosphorus fertilizers strengthen the mechanical tissues of plants and thicken the covering tissue. As a result, the spider mite and other mites have short webs to suck plant sap.

If the harvest is started taking into account the life of the pest found in each crop, the spread of this type of pest will be prevented in the future.

Chemical method of fight. When the spider mite and other mites multiply, chemical control measures are carried out against them. In this case, pesticides (chemical substances used in the fight against harmful organisms) that are less toxic for humans and warm-blooded organisms and the environment are used against them. In the fight against spider mites, acaricides (pesticides used in the fight against mites) nissoran 10% n.c. (wetttable powder) - 0.1 kg per hectare, neuron 50% k.e - 1 liter per hectare, sulfur 80% n.c - 10 kg per hectare , lime decoction of 0.5-10 sulfur and other pesticides are used. The most effective way to fight against spider mite is preventive measures. For this, it is good to treat the weeds around the field with a solution of 10% sulfur with lime before the spider mite enters the crop field.

Biological control method. Spider mites and other mites have many natural traps that limit the number of mites to a certain extent. These include thrips, thrips, etc. Golden eyes are bred in biolaboratories of Uzbekistan. The use of golden eye against spider mites and other mites is effective 6.5. Shields and false shields.

Shields are a suborder of the order of wasps. Most of the representatives of this subfamily form a shield by sticking to the surface of vegetative and generative organs of plants. That is why they are called shields. Some species are useful for dyeing. The size of thyroids is several mm, male and female differ from each other in external structure and development. The female of the shield and false shield is motionless and wingless, and the head, chest and abdomen parts of the body are fused together. Their body can be pear-shaped, spherical, oval and other shapes. The mouth apparatus is a mouthpiece, consisting of 4 teeth located in a sheath, adapted for sucking. Female turtles do not have legs.

Larvae of false shields are shieldless, and females are shieldless when they are young, and as they reach adulthood, the upper part of their skin hardens and withers towards the end of the egg-laying period. Females lay their eggs in balls under their shields and between their pouches. Males, unlike females, have wings and fly well. A pair of wings. The body of men is clearly divided into head, chest and abdomen. The head has a pair of long whiskers and eyes, but the oral apparatus is not developed. The last joint of the abdomen, which is thinned towards the tip, has a tube-shaped (tumor) external genital apparatus.

Larvae are dispersed in the young larval stage by various birds, wind and other means. Leaf beetles cause severe damage to fruit trees in the garden. It damages especially young seedlings

CONCLUSION

Several types of plant aphids cause damage to cotton, alfalfa, sugarcane crops, fruit trees and other agricultural crops, causing a sharp decrease in productivity. The abundance and composition of food, weather conditions, predators, parasites, the effects of diseases, etc., play an important role in the reproduction of plant pests.

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