

PESTS, DISEASES OF CITRUS PLANTS AND MEASURES TO COMBAT THEM

Saidov Muxamadi

Associate Professor of the Department of Ecology and Soil Science,
 Termez State University.

zokirov97@umail.uz

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Keywords: Pests ,spider, citrus plants, spider web

PESTS

In citrus plants, ordinary and red spider mites are common. These insects are 0.3-0.6 mm in size, have 8 legs, are yellowish-green and red in color, multiply very rapidly and spread rapidly from one plant to another.

Both spider larvae and mature insects are highly susceptible. High temperatures, low relative humidity and excessive application of fertilizers accelerate the development of the insect. Spiders can hide under bumps, shed leaves, and window cracks. They settle on the underside of the leaf, piercing the cell sap, resulting in the formation of light-colored spots on the leaves. Strongly damaged leaves are covered with a thin spider web and wither.

Spider mite



Figure 1
Ordinary spider mites



Figure 2
Red spider mites

CONTROL MEASURES.

Fighting spiders is a much more complicated measure. It is not affected by many drugs. The drugs that killed the spider did not kill its eggs, so they multiplied more quickly. These pests are sprayed with oil-containing drugs. Spraying should be repeated several times to achieve an effective result. When spraying, both sides of the leaves should be evenly moistened. But care must be taken that the leaves are not damaged by drugs. Spiders do not like ultraviolet light and therefore accumulate a lot on the underside of the leaf. In connection with this, lighting the lamps that emit ultraviolet light during the day from the underside of the trees for a few minutes a day also gives a high result.

SHIELD.

Shield beetle is one of the most common pests on citrus plants. It is found in the branches, leaves and fruit of the plant. They absorb the sap of the plant, leading to its weakening and reduced productivity. Insects that fall on the plant multiply very rapidly. They are

also dangerous in that they also spread viral diseases. We recommend that you do not place the lemon plant next to houseplants as it can be found in many houseplants.

SYMPTOMS:

Lice clinging to the plant walk in clusters and are located on the back of the leaf. As a result, the leaves become discolored and bend. The young branches are bent.



Figure 3

Control measures: 1- Fallen leaves are collected and burned. Crooked, diseased bushes are cut. The leaves and twigs are carefully washed on both sides with a solution of kirsov. Soapy water should not fall into the pan during washing. To do this, the soil is covered with polyethylene, and the bottom of the plant is wrapped with a soft cloth. The plant is also sprayed with a two percent oil emulsion (air temperature is cool, but not minus).

2 - Mix with Aktellik solution (2 ml per 1 l of water). It can be processed two to three times a week.

The spider clings to both sides of the leaf and feeds on its sap.

Symptoms: White spots appear on the leaves attached to the spider.

Control measures: According to the experience of amateur citrus growers, the simplest method against spiders and aphids can be used.

Put a plastic bag of appropriate size for the seedlings through the iron, soak a little cotton or soft cloth in a solution of dichlorophos, put it inside the bag and close the mouth of the bag tightly. It is then left for a few hours. When this method is applied three times in three weeks, the insects are completely destroyed.

GREENHOUSE THRIPS.

These insects are suckers and feed on plant sap and flower nectar. They fly. That is why it spreads viruses quickly. This is exactly the danger they face.

Control measures: the plant should be washed in a large stream of water (shower) and treated every two to three days with appropriate chemicals.

AQQANOT.

This four-winged insect looks like a small propeller, as if sprinkled with flour. Green larvae settle under the leaves. In the first stage of maturation, they become inactive, and later inactive. On this leaf itself one can observe the beautiful succulent appearance of the pest's eggs. Both butterflies and larvae suck the sap of the plant, leaving behind a sugary substance. More effort is required to get rid of leaks. Even a single flying butterfly can cause great concern. That is why it should be prevented immediately.



Figure 4
Greenhouse thrips



Figure 5
Aqqanot

Aphids. Yellow-green soft insects 1-3 mm long. They leave 14 to 20 generations in a single summer. These pests settle on the underside of the leaves, sucking its sap and causing the young leaves to curl.

Control measures: can be eliminated by using washing powder, thickening of manganese or soapy oil emulsion (1 tablespoon of washing powder in 1l of hot water, mixed with half a tablespoon of machine oil). The canals and juice can be completely eliminated by spraying three to four times with a solution of ordinary table salt (80 g / 1 l of warm water).

Actuality. Insect acaricide, the drug is released in ampoules, has a universal effect, is an effective drug against all repellent pests, all types of nectar, aphids, sucking spider species, thrips, thryoid. Mix 2 grams in 4 liters of water and spray the plant, the pests are completely eliminated in 3–4 days.

DISEASES

Gommoz.

Parasitic and non-parasitic homozygosums of citrus crops are distinguished. Regardless of the presence of gommos, physiological processes in the affected trees are disrupted and mucus (glue) leaks from the tree. The reason for the formation of glue is the presence of semi-parasitic bacteria in the mechanically injured areas of trees, which itch the tree cells.

The parasitic gonorrhoea is suspected to be caused by several microorganisms, including *Phytophthora citrophthora*, *Phomopsis citri*, *Botrytis cinerea*, and *Sclerotinia sclerotiorum* fungi.

Non-parasitic homozygous trees develop under the influence of deep planting, excessive soil moisture, excessive application of nitrogen fertilizers, cold stings of roots, sunburn of the stem, mechanical injury of the tree, inability of roots to breathe in dense and heavy soils and other factors. Symptoms and development of the disease. Swelling occurs in the bark of damaged tree trunks, from which a transparent, golden-yellow or brown liquid, elongated and quickly hardens in the air - glue leaks. Usually in the lower part of the trunk of a gourd tree (in the root collar)

Viral disease

The viral disease of citrus occurs in the form of dark brown spots on leaves and fruits. If the disease lasts a long time, the leaves fall off, damaged fruits appear. The disease destroys the plant. To prevent this disease, the plants need to be treated with a solution of copper sulfate.

Bacterial cancer

Symptoms of the disease. The leaves, leaf blades, twigs and fruits of citrus crops are damaged. The first signs of the disease begin with the appearance of small, oily, dark brown, then yellowish-brown spots on the underside of the leaves. These spots grow, rise slightly above the level of the leaf and acquire a whitish tinge, in the middle of which the epidermis chatters, in the middle of the spot takes the form of a light-colored border, crater-like depression, up to 3-4 mm in diameter. Their color and size vary depending on crop type and weather conditions. The spots are first round and then take the wrong shape. The tissue of the spots grows inside the plant tissue, then ruptures the epidermis and opens outwards in the form of cancer-porous (cloudy) tissue. The leaves turn yellow and fall off. The size of cancerous tumors on twigs and fruits reaches up to 15 cm. There is no yellow border around the spots on the fruit, but the crater-like depression is easily visible.

Bacteria usually enter the plant through various wounds, but can also enter through leaf holes. In host plant tissue, bacteria settle in the intercellular space, leading to tissue growth, the breakdown of plates between cells, and plant death. The development of the disease depends on weather factors: in hot and humid weather, for example, during the rainy season in the tropics, it develops very strongly. Crop seedlings and young trees are more prone to disease.

This disease differs from other diseases of citrus by three signs: 1) spots and cancerous tissue on the leaves are raised above the level of the leaves; 2) there will always be a yellow border around these spots and cancerous tissue; 3) there will be a depression in the center of the spots.

Extreme care should be taken when chemical treating plant insects. To do this, keep in mind the following rules: to wear a robe, to wrap a scarf around one's head, to wear a gauze mask over one's face, to wear rubber gloves, to open windows.

It is not allowed to smoke, drink water or consume other liquids, food during work. After the work process, it is necessary to wash robes and handkerchiefs, change shoes, wash hands with soap and warm water, if possible, take a hot shower. All pesticides should be stored in lockers. Particular attention should be paid to the safety of young children and pets.

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