



EFFECTIVE METHODS OF FIGHTING AGAINST BIRDS IN GREENHOUSES

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Abstract: To protect crops grown in the greenhouses of our country from pests, it is important and urgent to know the time of their appearance in advance and to create environmentally safe methods. Prospective chemical agents used in plant protection and their effects on pests is an area that requires extensive research. Cultivation of vegetables, fruits and other agricultural products without chemical treatment helps to maintain environmental cleanliness and ensure the health of the population. In this article, we will discuss in detail about greenhouse pests and their biological control.

Key words: Greenhouse, biological control, pest, encarsia, spider mite, agrotechnical measures, chemical method, mechanical method, area, bioecology.

INTRODUCTION

Currently, tomatoes, cucumbers, sweet and hot peppers, garlic, greens, cabbage and other types of crops are grown in existing greenhouses in our region. However, crop yields are reduced during the season due to various pests, such as autumn moths, roundworms, nematodes, tomato rust, spider mites, aphids, moths, spider mites, and borer flies. In addition, 60-70 percent of the crop is lost due to diseases such as fusarium wilt, verticilliosis, phytophthora, brown spotting, gray rot, cucumber and tobacco mosaic.

In order to protect the products grown in greenhouses from pests, work is being carried out on the species composition of harmful organisms encountered there, their dominant species, distribution area and bioecological development characteristics, as well as on the methods of coordinated control against them. Experts are fighting against such pests by strengthening phytosanitary control. In the greenhouses, measures are being taken to protect crops from pests and diseases, and to obtain high-quality and high yields.

In the conditions of Uzbekistan, tomatoes, cucumbers, berry crops, seedlings of vegetable plants, as well as lemons and ornamental plants are mainly grown in greenhouses.

The use of entomophages and acariphages, which control the number of harmful phytophages in greenhouses, has also shown its effectiveness.

METHODS OF RESEARCH

In Uzbekistan, the greenhouse aphid is causing more and more damage to tomatoes, cucumbers, eggplants, potatoes and many other crops in greenhouse conditions and in the open field. It is also adapted to cotton, tobacco, grapevine and other plants. The expansion of greenhouses has led to an increase in the mass of the pest, because the spider mite grows in the greenhouse all year round, and the natural conditions of the republic are favorable for its development. Taking into account the pest's resistance to various insecticides, especially to organophosphorus drugs, it is important to develop a method of biological control against it. In the fight against spider mite, 3-5 pieces of encarsia are spread on every 1 m² of land by

spreading 10 m apart, 5-7 days before the appearance of the first mature species of spider mite in the greenhouse planting areas.

CONDUCT RESEARCH

A moth is a small, light yellow insect with large white wings, 1-3 mm in length. These garden pests are typical of the tropics, and in order to deal with them, we first need to know what kind of damage spider mites can cause.

The insect lays its eggs on the underside of a plant leaf. The hatched larvae attach to the leaf and begin to drink plant juice, which over time causes it to dry up and die.

Since the pest multiplies quickly, there can be several generations of this insect on one leaf. In large quantities, they release a viscous mass that contributes to the feeding environment of fungi. It carries viral infections.

Sources of spider mite infection are plant debris, contaminated soil, and seedlings purchased in a greenhouse.

Withering of a tomato plant affected by a spider mite, curling of the leaves of seedlings, appearance of white spots, appearance of yellow spots on the leaf plate, drying, necrosis of fruits, and cessation of growth of buds' symptoms can be observed. This pest is adapted to live in warm climates with high humidity (for example, greenhouses, conservatories).

In order to get rid of pests, the importance of agrotechnical measures is incomparable, that is, when planting plants, they should not be too close to each other, it is necessary to install ventilation in the greenhouse, and to use preparations that ensure plant health. In addition, it is recommended to use glue-based traps to catch cockroaches. It is important that the traps are yellow because the yellow color attracts the white fly.

Tomatoes grown in a greenhouse are more susceptible to diseases and pests than tomatoes that are not grown outdoors.

These pests include tomato rust mite, spider mite, greenhouse spider mite, greenhouse thrips and aphids, fall armyworm, cotton bollworm, caradrina, borer flies, nematodes, and other pests from various systematic families. As a result of severe infestation of tomato pods, the yield of the plant is up to 40-50%, and in some greenhouses even up to 50-60% is dying. Therefore, it is necessary to study the characteristics of their biological development and their harm, to scientifically base the measures of the fight against common greenhouse pests, and to create a set of methods and tools that are economically efficient and less toxic to the environment. At the same time, it is desirable to determine the effectiveness of modern and effective pesticides tested against a set of pests and to put them into practice, to evaluate the biological and economic efficiency of chemical agents that show positive results.

Spider mites (aleurodids) are considered parasites, small insects that feed on plant sap. Attacks of the parasite on plants are a constant problem for farmers. Spiders not only eat plants and vegetables, but also carry diseases that cause viral diseases. In order to get rid of them, it is necessary to apply comprehensively, combining different methods of prevention, quarantine and destruction. Otherwise, your harvest will be in danger.

Aleurodidae offspring feed on plant sap. The faster their number increases, the weaker the plant becomes, which leads to slow growth and yellowing of the leaves.

In order to effectively eliminate aleurodida, you need to know the signs of its appearance, living conditions, control and prevention methods.

A greenhouse is considered a favorable place for the life and reproduction of insect pests. The main way spiders enter greenhouses is through planting material. A pair of larvae on a seedling is enough for infection.

The greenhouse environment has favorable conditions for their rapid reproduction, i.e. humidity, warm air, stale air, plant density.

Cockroaches are considered to be heat-loving insects. When the temperature falls to -15 C, the mature forms die. Thus, it is possible to freeze the greenhouse in winter in cold regions. Aleurodids can easily winter under snow, so freezing is best done before or after a snowy period. In order for the greenhouse to freeze well, it must be divided into parts.

The use of smoke to control pests also gives an effective result. This method is very good for warm regions. The greenhouse is processed using tobacco or sulfur smoke. Such processing quickly destroys the larvae.

When an insect appears in tomatoes and cucumbers, it will be very difficult to get rid of it for a long time. Here it will be necessary to approach the task in a comprehensive manner.

The use of copper sulfate solution not only helps in effective fight against spider mites and other parasites, but also makes the soil fertile. This method can be used once every 5 years, as the high copper content in the composition damages the crop. The procedure is carried out a month before planting in spring or autumn. Copper sulfate solution - 200 g / 10 l in addition to watering with an aqueous solution, the entire greenhouse should be thoroughly washed.

CONCLUSION

In the world, tomatoes are cultivated as a food product in more than 100 countries of the world. Tomato is a product that occupies an important place in the human diet. Especially on hot summer days, tomatoes cannot be removed from our table. Tomatoes are grown on a large scale in all regions and districts of our republic on farms and private plots of the population. Therefore, it is natural that the necessary recommendations on protecting it from pests, increasing its productivity, and the results of the scientific analysis obtained will be interesting and useful for everyone.

Today, several types of pests damage the tomato crop under greenhouse conditions. This does not correspond to the criteria of providing the population with quality food products. In addition, there are also cases of reduction in the yield due to pests. From 10% to 90% of the total yield can be lost due to pests and the diseases they cause. In order to continuously provide the population with these products throughout the year, it is important to find ways and means to effectively protect their crops from diseases and pests.

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