

MEASURES OF FIGHTING POTATO PESTS

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Abstract: Potato cultivation is a widely cultivated plant in Uzbekistan, and it is actively grown on potato farms and residential plots. Farmers are using various modern agro-techniques to grow potatoes, but various pests are causing serious damage to the productivity. Then, one of the pests is the potato aphid, which causes damage to potatoes. Our research has shown that it is necessary to fight against such pests using chemical drugs, choosing the optimal situation.

Keywords: Sucker, cockroaches (Aleyrodidae), Agrotechnika, Karbofos, Aktellik, BI-58; from synthetic pyrethroids Sumicidin and encarsia (trchoporus).

The government of the republic has made it a high task for the scientists and agricultural workers to concentrate, specialize and introduce new methods in the cultivation processes, to increase the productivity of potato growing, to increase productivity. It is known that the population of our country is increasing day by day. This will further increase the demand for agricultural products. Natural and high-quality delivery of products, taking into account the rights of consumers, is the responsibility of farmers. But, like the other side of the coin, there is some difficulty in doing these things.

Currently, considerable success is being achieved in the field of potato cultivation, effective use of fertilizers, breeding of fruitful varieties and improvement in the conditions of Uzbekistan, especially with countries with highly developed agricultural culture such as the Netherlands and Belgium. A lot of orchards are being established in agriculture, but among them, grape orchards are being established very widely. Death of up to 50%, at the same time, the marketability of grapes remains poor, sucking pests also cause serious damage to orchards.

Double harvesting of potatoes in the conditions of our Republic, elimination of diseases and pests, and proper use of available opportunities are of great importance nowadays. Research is also being conducted to create a new, compact tractor, cultivator, seeder, planter, and harvester in vegetable and potato growing. Turning the potato industry into a high-profit, low-cost industry, reducing planting costs, using advanced agrotechnics, creating new low-cost methods of storage, as well as using low rates of effective pesticides against dangerous pests and diseases, using coordinated protection, taking into account the economic damage much attention is paid. It is clear from this that potato growing is a highly profitable and promising field in vegetable growing, and it plays an important role in the fulfillment of the food demand of our Republic.

According to the received data, 35% of the crop of plants grown in the whole world dies every year, 14% of which corresponds to the share of diseases and harmful insects. In addition, 20% of the crop dies during transportation and storage.

Spiders belong to the Aleyrodidae family of the order Homoptera. About 1200 of their species have been identified (Byrne, Bellows, 1991). Four types of them have been identified in Uzbekistan. Cotton is mainly harmed by 2 species: greenhouse (Trialeurodes vaporariorum Westw), tobacco (Bemisia tabaci Genn), whiteflies, citrus trees - citrus whiteflies (Dialeurodes citri), cabbage - cabbage whiteflies (Aleyrodes proletella). harms.

Aqqanot began to adapt to cotton since the 1970s. The wide spread of this pest is inextricably linked with the sharp increase in greenhouse production in our republic. It is known that 4% of Aqqanot can be stored in open conditions and the rest is absorbed (Hoshimov). The pest develops and breeds in greenhouses during autumn and spring. With the onset of hot spring days, they fly out into open conditions and begin to damage various crops (including sunflowers). A spider mite is a hairless insect. It goes through egg, 3 young larvae, nymph and adult (imago) stages.

Spider mites are characterized by a number of biological properties. They protect it from adverse environmental conditions and allow it to multiply and spread over large distances. In the spring-autumn period, the spider mite can give birth 7-8 times, and in the autumn-spring period 4-5 times in greenhouses, in total 11-13 times a year. The homeland of the spider is a tropical climate. That is why it is a moisture-loving insect. Air temperature of 22-27 0C and air humidity of 70-80% are the best for it. They die in the cold winter conditions of Uzbekistan. Crops around large cities and villages begin to be damaged by spiders that have flown out in the spring.

They settle on the back side of young leaves and feed by stinging and sucking, then they start to lay eggs. Small oval-shaped eggs are attached to a short thread. After 5-8 days, the eggs turn black and the larvae hatch. After settling in a comfortable place, the moving larva in the early stages stops moving and feeds in one place and turns into a nymph after molting 2 times. The nymph has a relatively hard shell, which is resistant to mold and chemicals.

Among the flowering crops, it especially damages tomato and potato plants. These crops can be damaged by common species: greenhouse (*Trialetrodes vaporariorum* Westw) and cotton (tobacco) (*Bemisia tabaci* Genn) mite. In outdoor crops, the greenhouse moth does not develop in the hot summer days, but this does not apply to the cotton moth. This type of cockroaches is not adversely affected by the high temperature of the air. That's why, from the 1990s, the cottontail became a dominant species in Khorezm, Bukhara, Surkhandarya regions and Karakalpakstan. It developed strongly in open field conditions and in greenhouses and partially displaced the greenhouse mite, the damage of the mite also depends on the phase of the plant's development from which it started to damage it. That is, the earlier the plant is damaged, the more crops can be lost. If it is damaged from the moment of entering the crop, 1/3 of the crop can be lost. A potato crop can lose 60-70% of its yield when it is heavily infested with cotton bollworm.

Integrated control measures against the spider mite belonging to the Aleyrodidae family. During the implementation of integrated protection in potato cultivation, first of all, it is necessary to select high-quality seeds, it is necessary to pay attention to the saturation of the soil in the field where potatoes are planted. Potatoes are mainly planted in early spring, if they are planted late, the yield of potatoes will decrease, because potato vegetation lasts until summer, and potatoes do not like hot weather, potatoes like cool weather very much. First of all, biological control against sucking pests of potatoes is effective. The combined protective means listed below can be used in the fields. Encarsia (trichoporus) is the most effective pest control in potato fields – Enraciya Formosa Gahan. and Eretmocerus - Eretmocerus haldema can be included. These are endoparasites, encarsia infects the larvae of the greenhouse mite, and eretmotcerus the larvae of the cotton mite. The infestation of spider mite larvae reaches its highest level in the autumn months and makes up 60-70% of the total population. Among omnivorous entmophages, spider mites are eaten by larvae of golden-eyed and coccinellid beetles. As soon as spider mites appeared in the fields of the Republic, research on the organization of chemical control against them began. Phosphoroorganic insecticides Karbofos, Aktellik, BI-58; from synthetic pyrethroids, Sumicidin, Desis, Simbush, Talstar, Danitol are recommended. in). Therefore, a rapid tolerance (tolerance) to the drugs used in its population may occur.

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