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PEAR SUCKING PEST DAMAGE AND METHODS OF COMBATING IT.

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Annatatsiya: As a result of damage to the pear leaves turn black and fall off in the middle of summer.Mature pears are very mobile and sensitive,so they are afraid and jump from leaf to leaf,branch to branch with a sense of danger.They are wrapped in the fluid they excrete,lose their sensitivity to pest and insecticides,and become protected.As a result,it becomes difficult to eradicate them.However,the following insecticides work well in science-based control methods.Karate-to/l 0,4,nurell-D-to/l 1,0 vertimek-to /l 0,3 tsipermetrin-to /l 0,3 ,dimilin-to /l 0,1 konfidor-to /l 0,3 Endjeo- to/l 0,2.

Introduction: The growing demand for food in the world from year requires the expansion of agricultural production and the consonant supply of high quality food products.

The United States and Turkey are leading European countries in terms of pear production and exports,while China and Iran are the most successful countries in Asia. However,in years with high rainfall and low air temperatures and high humidity,there is a decrease in productivity in intensive pear orchardes.One of the most pressing issues today is to conduct research in priority areas such as the composition of the pear psyella,its biological properties and the creation of advanced resource-saving measures against them.

Methods: Research has been conducted using methods adopted in plant protection. In this case; V. V. Yakhontov Phenocaldehyde testing of pesticides was

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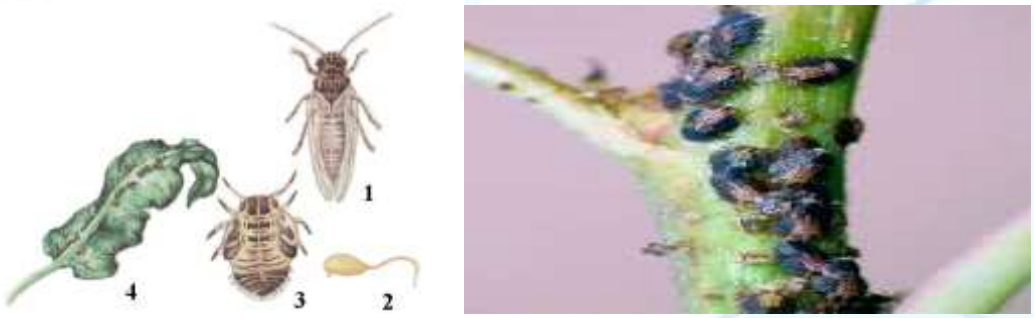
carried out using the methods of A.G. Makhotkin, V.A. Pavlyushin and economic and biological efficiency of pesticides SH. T. Khadjaev.

Metrial: Pear psylla or pear's medianit is one of the most vicious pests of pears. In the last 10-15 years, due to the increase in its distribution, densty and damage in the country, there have been great difficulties in cultivation of pears. As aresult of the activity of pear trees weaken, fruit quality deteriorates, productivity decreases, and the trees resistance to winter cold decreases. The trunks of the trees darken, fall off in the middle of summer and become bare, the strongly damaged tree branches and buds become immaturely crooked, the fruit crops have crooked,fine and woody structure and remain of poor quality.



1-picture.Ordinary pear psylla: 1-mature breed 2-its egg. 3- its larvae 4- its eggs laid on a pear leaf.

Pear psylla belongs to the family of equal birds (Homoptera) , psillids (psyelinea)belong to the subfamily.It is a small (2,5-3mm),stinging sucking insect with a pair of wings that gather in the shape of a cap.Mature males and females overwinter the tree in various shelters (under the bark, cracks) and under the remains of plants under the tree. As it is resistant to cold, it wakes up early and starts laying eggs at +5C. First it takes the egg from the bud and lays it on the buds. Sleeping offspring live a total of 35-40 days, laying from 400 to 900 eggs (Vasilev ,Livshits 1984). It lays its eggs in the form of a ridge under the bud, and then in balls under the followerbed, as well as on the upper and lower parts of the leaves ,up to 30 pieces.The larvae ,which emerge from the eggs and resemble mature ones ,enter the bud of feed on the surface of the young leaves. Now strongly fed larvae begin to release a juicy liquid from themselves. In turn the drops fall down and cover the surface of the leaves and fruits, as a result of the development of fungi in them, the tree begins to turn black; as the process of photosynthesis deteriorates, the leaves begin to fall off. In the conditions of Uzbekistan, pears psylla grow in 5-7 seasons. Its development is often dependent on air temperature ,and in hot conditions (up to a certain limit) it accelerates the transition form age to age and passage of each life form.For example, if the average daily temperature is 20C, the larvae will be 23-24 days,and at 27C, 15-16 days. The larvae and mature species of the beetle are very mobile and sensitive, so they are easily frightened and jump from leaf to leaf,branch to branch, with

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a sense of danger. They are wrapped in the fluid they produce, lose their sensitivity to insects and insecticides,and become protected.As a result,they are difficult to eradicate.

Results: Our research shows that identifying and using effective timeliness in the fight against pear sweeteners can give good results.These include:

1. Against rural population, treatment is highly effective in February-March, when the pest wakes up and lays eggs on short hot days, before the tree has yet to wake up.
2. During the period when the tree buds swell and the center begins to crack,the winter psyllaries continue to lay eggs.

If the protective treatment is not carried out within the above - mentioned timeframes the pest may become more numerous due to insufficient effectiveness of subsequent processing.

New, first generation pear varieties are more lighter coloured that those that overwinter.

1. Pear trees are processed before flowering in full bloom. At this time, the first generation of mature varieties of psylla.
2. After another 10-12 days,the processing is repeated when the mature breeds lay eggs.

Among the varieties of pears grown in Uzbekistan ,there are no ones that are not affected by psylla.However,observations show that some varieties are less damaged.These include “stone” pears(Oliver Deser,Bere Royal) .It turned out to be the most intolerant Kulola (nashvat pear). (See table).

1-Table.

Contamination of some varieties of pears grown in Uzbekistan with pear psylla. (Field observation ,in 2019-2021y)

Pear varrieties	Rapid ripening	Damage %			Degree of damage*)
		In July	In August	In September	
Wedding	Fast ripening	18	27	67	4
Klap’s favorite	Middle ripening	24	31	40	3
Forest beauty		31	46	54	4
Oliver Deser (stone pear)	Late ripening	8	19	57	3
Bere Royal (stone pear)		24	23	57	3
Kulola (nashvati pear)		36	74	100	5

Note: *) – The strongest damage was taken as the 5 th point.

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Pear psylla has a very high potential. That is, even with a small number of initials, it increases rapidly, increasing its densty in a short period of time.In part ,this is because the larvae are wrapped in a sticky solution and many natural cousins do not approach them. Only the fact that ants crawl on such a tree in a large numbers indicates the presence of psyllaries.Ants feed on the liquid secreted by the psylla. Two requirements are followed when using insecticides with chemical properties against pear psylla.The first is the type of different insecticides with different efficacy, the second is the correct determination of the duration of their use. Insecticides that typically produce lower yields may also produce higher results if the time periods for which high yields can be obtained have been identified and treated.

Discussion: This article was discussed and recommended for publication at the department of plant protection of Andijan Institute of Agriculture and Agrotechnology.

Conclusion: Therefore,satisfactory or unsatisfactory efficacy can be obtained from the most modern and especially highly effective vertigo (abamectin), which has the ability to act translaminar (absorbed into plant tissues).

Studies show that when used in science-based terms,many modern insecticides can show high results against pear psylla.These include: Karate-to/l 0,4,nurell-D-to/l 1,0 ,vertimek-to /l 0,3, tsipermetrin-to /l 0,3 ,dimilin-to /l 0,1, konfidor - to /l 0,3 Endjeo-to/l 0,2 and others. However,high results cannot be expected from insecticides used in the spoiled periods, as the larvae and leaves are covered with a protective coating which does not allow them to be effective .

Acknowledgement: This article was discussed and recommended for publication at the department of plant protection of Andijan Institute of Agriculture and Agrotechnology.

References: Thus it is recommended to use the following complex prevention measures and methods in the protection of pear psylla.

1. In the fall,the leaves and other organic debris are removed and burned around the tree.Preparing the tree for the winter ,clearing it of old and migrated bark,cutting off broken and excess branches and removing them from the field.Under the tree and overturned by cutting the space.
2. An active way to effectively protect pear trees from psyllaries is to determine the effective science-based timing of chemical treatment.
3. The first two treatments against the overwintering population of the past: 1- the days when the weather warms up for 3-4 days in the early stages (Fabruary-March),and 2-in pear trees when the buds swell and the center begins to crack. Treatment against subsequent generations of the pest is carried out using Vertimek insecticide,when the larvae of the pest are not wrapped in aphids,and the adult breed begins to lay eggs.

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Used literatures :

1. Ченкин А.Ф. Методика определения экономической эффективности использования в сельском хозяйстве результатов НИИ и опытно-конструкторских работ, новый техники, изобретений и рационализаторских предложений НТС МСХ СССР. // - М.: ВНИИТЭИСХ, -1979. - №7. - 27 с.
2. Abbot W.S. A method of computing the effectiveness of an insecticide //J. Econ. Entomol. - Vol. 18. - 1925. - N 3. - pp. 265-267.
3. Васильев В.П., Лившиц И.З. Вредители плодовых культур.-Москва: «Колос», 1984.-398 с.
4. Шукуров Х.М., Ахмедов А. Malignant pests of pears //Journal of Agricultural Uzbekistan.-2012.-№9.-Б. 31-32.
5. Алексеева С.А., Быстрая Г.В., Агубян С.К., Нагоев Б.Н. Поиск эффективных инсектицидов в борьбе с грушевой медяницей //Ж. Защита и карантин растений.-Москва, 2010.-№10.-С. 28-31.