



Protect pomegranates from pests

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ABSTRACT

Pomegranate has been grown for the fruit in Uzbekistan since ancient times. The composition of the ripened fruit contains sugar 15-19%, and acid 1.2-2.5%. Pomegranate juice contains iron and a lot of tannin. Pomegranate is used to treat various diseases in medicine. Pomegranate tree is a precious material. Pomegranate is also grown as an ornamental tree.

Keywords

Fruit growing, pomegranate plant, larva, aphid, harm, biological efficiency, rate of economic harm, plant protection, insecticide.



Fruits and vegetables are of great importance in human life and play an important role in the diet. As a result of non-regular application of protective measures and other measures, pests cause great damage.

With this in mind, we conducted research on the bioecology of pests in the pomegranate, which is a medicinal fruit, and the application of optimal methods of control.

Pomegranate (*Punica L*) has been grown in Uzbekistan since ancient times. His

homeland is Azerbaijan, Iran and Afghanistan. The pomegranate genus includes two species. One of them (*P.granatum* L) is grown in Central Asia, Transcaucasia. The second type (*P. Protopunica* Balf) grows wild in the Socotra Islands, its fruit unfit for consumption. The pomegranate currently grown and its wild varieties are obtained by selection.

Pomegranate is grown mainly for its fruit. Ripe fruits contain 15-19% sugar and 1.2-2.5% acid. Pomegranate juice contains healing iron and large amounts of tannins. Pomegranate is used in medicine to treat various ailments. Pomegranate wood is a valuable material. Pomegranate is also grown as an ornamental plant.



Horticulture plays an important role in meeting the food needs of the population and increasing the economic potential of the country. It is known that the Republic has fertile soil, favorable weather conditions and irrigation conditions for the development of horticulture. One of the important factors for increasing productivity, improving product quality is the regulation of pest and disease control work. It is necessary to carry out control measures in a timely manner on the basis of accurate predictions, rational use of biological and low-toxic substances. (1)

In order to meet the public demand for pomegranate fruits, which contain medicinal substances, it is necessary to protect these trees and fruits from various pests. Pomegranate can be damaged by a number of insects and spiders. In recent years, the loss of

pomegranate fruit poses a major problem in the development of horticulture.

Therefore, in 2017-2019, we conducted research in the "Red Pomegranate" variety of pomegranate in Balikchi and Izbaskan districts of Andijan region. Research on the biology and phenology of insects has been conducted in conjunction with field observations and laboratory observations. Chemical treatments were carried out on hand and motor sprayers using 1000-1400 liters of working fluid per hectare. When working with insects (Bondarenko, Glushenko 1985; Zakhvatkin, 1986), we used the manuals published by Khodjaev 2004 to test drugs. (2)

In our research, the pomegranate tree is damaged by pests such as *Aphis punicae*, *Aspidiotus hederae*, *Euzophera punicaella* Mooze, *Pseudococcidae*, and *famopsis* and gray rot.

Pomegranate fruit-Euzophera punicaella Mooze, (Lepidoptera, Tortricidae) belongs to the family. Observed in all areas of Andijan region. The pomegranate fruit overwinters in the form of mature worms and fungi, mainly in the fruit shed under the tree, in the bark, in the shelters of the trees.

The pomegranate fruit has evolved over the years of our research, giving birth to 6 generations. This pest went into the winter in the form of worms and got out of the winter, turned into a fungus in April and May. Phenology was studied by linking our experiments with laboratory and field experiments. In our observations in Balikchi district, the worms that went to winter began to turn into mushrooms in the 3rd decade of April. Butterflies from the winter began to lay eggs from the 2nd decade of May. When the pomegranate blossomed and the fruit began to run out, the fruit butterfly laid an egg in the fruit flower bowl. The young worms that hatch from the eggs enter the fruit from there and develop by secretly feeding. The flower went out into the bowl and into the mushroom. Thus, it developed by giving 5-6 generations before winter.

Harm: Pomegranate fruit can be damaged by eating only pomegranate fruit and fruit peel. Fruit-damaged fruits rot in the fruit and become moldy and unusable due to the activity of secondary microorganisms. This significantly affected the yield and quality of the pomegranate. The damage of pomegranate fruit after the 1st and 2nd generation was high. In the valley conditions, up to 95% of the damaged trees are damaged by this pest, which develops inside the fruit buds and causes great damage to the crop.

Pomegranate fruit has given rise to many generations and its secretive development into the fruit has limited the effectiveness of insecticides. In our research, pomegranate fruit phenocalinder was developed and processed 8 times. Alfamilin, 17.8% sus.k, Mitak 20% em.k, Dva.trin 10% em.k, Detsis 2.5% em.k were 80-85% effective against control when treated. From this it can be concluded that the appropriate application

of these insecticides against pomegranate fruit gives good results.

References

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