#### **ROSA AND INTEGRATED PEST CONTROL MEASURES**

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#### **Abstract:**

This article provides information on the value of the medicinal Rosa plant in the national economy and pharmaceuticals, its botanical definition and its main harmful organisms and measures to combat them. It is noted that mainly in the wild rose contains the main harmful organisms, such as Rhagoletis alternata, Celypha rosaceana, Macrosiphum rosae L., Arge ochropus, Tetranychus urticae.

**Keywords:** sawfly, pink, pharmaceuticals, medicinal, chemical, fruit, flower, bud, acaricide, pyrethroid, organophosphorus

#### **INTRODUCTION**

On global scale, special attention is paid to the protection of territories where medicinal plants grow. There are 10-12 thousand species of medicinal plants in the world, chemical-pharmacological and medicinal properties of more than 100 plant species have been studied. There are 577 species of medicinal plants in Uzbekistan.

Currently, the area of rosa plantations and the amount of raw materials extracted from them are increasing in the world. However, due to the fact that rosa is affected by various pests and diseases at different stages of development, not only its large yield is lost, but also the quality and quantity of medicinal substances in it is sharply reduced.

General Description of rosa: Rosa is a shrub that includes more than 3000 species belonging to about 100 genera, including grasses, shrubs, shrubs and trees.

The leaves of some representatives are often alternate, with lateral leaves, which sometimes fall off early, and sometimes persist for a long time, because the base is attached to the leaf.

Flowers are sometimes solitary, sometimes in inflorescences, actinomorphic (sometimes zygomorphic), less often 5-membered, 4-6-membered. The place of the flower is convex, flat, concave or cupped. The calyx consists of loose calyx leaves, the calyx leaves appear to be fused if they protrude from the expanded base of the flower disc.

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## **RESEARCH METHODS**

Entomological calculations and observations were carried out by the method of V. Yakhontov, G. Ya. Bei-Bienko, N.V. Boidarenko, A.A. Captures, S.A. Murodov; The density of pests was determined by the method of Sh.T. Khodzhaeva; The dominance of entomophages was based on the methods of K.K. Fasulati, S.N. Alimukhamedov. The degree of harmfulness of the phytophage was determined by the method of V.I. Tansky.

## **RESEARCH RESULTS:**

## **Rhagoletis alternata Fall:**

This pest belongs to the Tephritidae family and is the main pest of rosa. Distributed in the CIS countries. The length of the female is 3.8-5.4 mm, the length of the male is 2.9-4 mm. The head and body are yellowish brown; larvae 7–8 mm, straw-colored. It hibernates under the bark in the form of a false pupa or between bushes to a depth of 5 cm.



## Rhagoletis alternata Fall

Chemical control of flies is effective, therefore, it is advisable to use the recommended organophosphorus preparations against this pest.

The wingspan is 15-22 mm, the front wings are light yellow to dark brown. They wrap their leaves and live inside.



Celypha rosaceana.

As precaution against the leaf roll, he cuts off damaged twigs, collects leaves wrapped in a tube sprayed with the "Prophylactin" preparation (10 l of water/0.5 l) at an air temperature above +50C. The tree consumes 2–5 liters of fluid.

Before flowering rosa, the following preparations Atom, Ditox, Di-68, Binom, Bi-58 Novy, Rogor-S, Terradim, Desant, Tagor, Tod, Zolon, Fufanon are sprayed from 10 ml per 101 of water. Good results are also obtained by Avant, Lannat 20 L, Aktellik, Kalipso, Sumition, Samurai Super, Sumidju, Koragen.

If the spraying is delayed and the larvae are hiding in the leaves or buds, spray the following pyrethroids Ivengo, Alt Alpha, Accord, Alfacin, Alfashans, Tsi-Alpha, Fatrin, Fastak from 3 ml per 10 liters of water. In such cases, it is necessary to use the bactericidal preparations Lepidocid, Bitoxibacillin, Fitoverm and Akarin.

It is not recommended to use highly toxic drugs after flowering rosa or in summer. Insegar is also effective, controlling the development and growth of insects when butterflies begin to fly.

Macrosiphum rosae L.

There are more than 4,700 species of aphids in the world, the most common of which is Macrosiphum rosae L., which cause serious damage to fruit and ornamental trees.



Macrosiphum rosae L.

Against aphids, you can spray a solution of laundry soap 2-3 times, if aphids are sprayed too much with Actellik or Aktara preparations.

Arge ochropus.

Arge ochropus can live on all fruit and ornamental trees. It is mainly known for damaging flower stalks. The larvae cause serious harm. Size 7-10 mm, glossy. The dome is 10 mm long and 5 mm wide. One female lays up to 70 eggs. A rose bush is an insect that infects rosa and roses equally and thoroughly.



Arge ochropus.

The drugs Karbofos, Benzophosphate, Metaphos, Chlorofos, Arrivo, Mospilan, Virin-Diprion from viral drugs, Aktara from neonicotinoids, Karate from pyrethroids, Kinmix have a good effect against the sawfly.

There is also method of spraying the plant by soaking 1 kg of the anti-Arge ochropus aconite plant in 30 ml of water for two days with the addition of 30 ml of alkali and 50 g of laundry soap.

Tetranychus urticae.

Among other plants, especially rosa, Tetranychus urticae cause serious damage. Tetranychus urticae is unisexual, oval body, male 0.2-0.3 mm, female 0.4-0.6 mm. On the outer side of the back there are 26 fine hairs arranged in seven transverse lines.



Tetranychus urticae.

One of the main reasons for Tetranychus urticae to breed is dry weather, so spraying trees with water also prevents it from spreading to the tree. If Tetranychus urticae has crossed a tree, then other control methods are used.Dissolving 4-5 grams of washing powder in 1 liter of water and spraying will also prevent Tetranychus urticae from breeding.

From acaricides Sunmayt, Demitan, Omayt, Flumayt, Floromite, Nissoran, Bicol, Bitoksibacillin, Envidor, Apollo, Borneo or insectoacaricides Akarin, Agravertin, Vertimek, Dursban, Karate, Kleschevit, Fitovertofit, Akarin, Talafitovit.

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