

Biological control of diaspid (Homoptera) with coccinellid - *Rizobius lophanthae* Blaisd (Coleoptera) in Azerbaijan.

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*Among pests of plants a special place occupy coccids and diaspid (Homoptera, Diaspididae, Coccidae) . These facilities, which are not under the state control, are being suffered of the many kinds of wreckers. Among of these wreckers, the number and damage of armored and not armored scales are enormously increased Among natural enemies of diaspid the coccinellids (Coleoptera, Coccinellidae) have a large importance During last years *Rizobius lophanthae* Blaisd was revealed for Azerbaijan fauna as an effective predator of diaspid Therefore biological control of these pests with local entomophagous insects, including *Rhizobius lophanthae* Blaisd which is an effective predator of armored scales, is of great importance. *R. lophanthae* Is effective predator *Aspidiotus nerii* Bche., *Parlatoria oleae* Colvee, *Diaspidiotus perniciosus* Comst., *Pseudaulacaspis pentagona* Targ. etc.*

The cultivation of fruits one of the important sectors of the in the Azerbaijanian agricultural industry. The Guba-Khachmaz zone is famous with its apple-pear, cherry Lankaran region is known as the citrus, while the Shaki region is the main nut supplier. After of the gain of independence, in the republic, has increased the number of many farmer facilities busy in the cultivating of the different fruits. These facilities, which are not under the state control, are being suffered of the many kinds of wreckers. Among of these wreckers, the number and damage of armored and not armored scales are enormously increased

Among pests of plants a special place occupy coccids and diaspid (Homoptera, Diaspididae, Coccidae). They cause plants the big harm, exhausting juices from them they cause premature dying off and subsidence of foliage, drying out of branches, decreasing an annual growth, deformation of leaves and shoots. And at mass infection they lead to drying up of plants, especially young ones. Coccids and diaspid appreciably worsen quality of a crop, sometimes even result to total loss of latter. Against of these diseases the farmers are using especially chemical preparations. The use of these preparations in the cultivation of apple, pear, cherry, citrus fruits conducts to the fruit poisonings. The pollution of ecology with the chemical preparations leads to the increasing of some dangerous diseases, especially cancer and others. The lack of the ecological education of the farmers, who are using these chemical components in the process of the treatment of these vegetative cultures, is leading to the pollution ecology and fruits and to the death of natural bioagents (entomophags), and to the creation of new, more sustainable wreckers to these preparations

Polyphagy, high productiviti and ecological plasticity allows these pests to be widely distributed. Now in the integrated protection systems of plants from coccids and diaspid the important place belongs to a biological method of control, including use of natural resources of useful entomophagous insects, that answers wildlife management from pollution. However, natural resources of entomophagous insects have been still used not much in the integrated systems of protection of plants from a pests. . The use of the useful insects against of wreckers is very important, because it protects the ecology from the pollution.

The problem is very important from the ecological point of view- which targets to pay an attention to the biological struggle against wreckers and decrease the chemical methods and if necessary to use the minimal dozes. The use of the biological methods of struggle and minimal doze of chemical preparations against of wreckers - is an integrated kind of the struggle against the wreckers protects the ecology from the pollution. The problem is important from the social point of view. Equipped with the knowledge about the damages of wreckers and useful entomophags, the farmers will use an integrated method of struggle against wreckers, in a result we will get an ecologically pure product, also to the increasing of quantity and quality of agricultural products. Among natural enemies of diaspid the

coccinellids (Coleoptera, Coccinellidae) have a large importance. Last years the chemical preparations are the main mean used against these kinds, which leads to the intoxication of the products. That's why at Present it's necessary to carry out integrated measures, agro-technical, chemical and biological and other methods of struggle. These methods are to be bound themselves so, that one method promote to rise an effectiveness of the following methods on the protection of the trees. The biological method of the struggle, which uses the natural resources of useful entomophags, should be considered as the major method during the struggle against the wreckers. The combination of these receptions will result to the ecologically pure products

During last years *Rizobius lophanthae* Blaisd was revealed for Azerbaijan fauna as an effective predator of diaspid. Therefore biological control of these pests with local entomophagous insects, including *Rhizobius lophanthae* Blaisd which is an effective predator of armored scales, is of great importance. *R. lophanthae* will be reared with use of the modified American methods on a potato infected by oleander and violet scales (Huffaker, Kennett, 1962). Tubers with a clean and smooth surface will be covered by moistened in water pieces of a gas sieve. Over these pieces leaves and the shoots infected by oleander and violet scales will be placed (during mass hatching of larvae). After that the box will be closed by a cover and exposed in darkness at temperature 25° C. Vagrants will hatch from eggs in 2-3 days and attach to a surface of tubers. It is also possible to use a pumpkin for rearing of scales.

R. lophanthae Is effective predator *Aspidiotus nerii* Bche., *Parlatoria oleae* Colvee, *Diaspidiotus perniciosus* Comst., *Pseudaulacaspis pentagona* Targ. etc. At 25 developments of one generation last about 30-34 days. In biolaboratory it will be reared *Rizobius lophanthae* Blaisd and used against armored scales. Biological bases of rearing of *Rizobius lophanthae* will be developed and practical recommendations for their use in biological control of scales will prepared. Biological bases of rearing of *Rizobius lophanthae* will be developed and practical recommendations for their use in biological control of scales will prepared.

The predator will be used in Azerbaijan against armored scales, including *Pseudaulacaspis pentagona* Trg. - a quarantine species widely distributed in Azerbaijan last years. The made lists of harmful scales of Azerbaijan on various agricultural and decorative cultures can be used by experts in plants protection.

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