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DISTRIBUTION, HARMFULNESS, BIOECOLOGICAL CHARACTERISTICS OF DECORATIVE APPLE TREE BARK BEETLE (Scolytus rugulosus Muell)

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Abstract
The distribution, harmfulness and bioecological features of the pest decorative apple tree bark beetle (Scolytus Rugulosus Muell.), causing damage to ornamental pears and ornamental apple trees grown in the city of Tashkent, are presented.

Keywords: Ornamental trees, larva, pest, decorative apple tree bark beetle, bioecology.

Introduction

At a time when the world is experiencing global climate change, and when our government is paying great attention to ornamental plants in cities and other residential areas, it is necessary to conduct in-depth scientific research on the above issues and develop a set of effective countermeasures. In the world, pests of ornamental trees are widespread in China, India, USA, Mexico, Brazil, Italy, Spain, Hungary, Russia, Ukraine, and Central Asian countries, causing great damage. Particular attention is paid to landscaping, landscaping and forestry, taking into account the improvement of nature, increasing natural biodiversity, improving the sanitary condition of residential areas and the environmental situation.

Today, the study of the species composition, bioecological characteristics, distribution and spread of pests of ornamental trees in the CIS countries and leading countries of the

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world, the USA, Germany, Italy, France, China, pays great attention to the study of harm and the development of effective methods to combat them. Carrying out current scientific research is one of the urgent tasks of our time. For this reason, it is necessary to study the characteristics of the bioecological development of pests, their distribution, harmfulness and measures to combat them, as well as the development of a system of environmentally safe and effective measures to combat these pests.

In recent years, ornamental trees have been widely used for decorating and landscaping city and rural avenues. In the conditions of Uzbekistan, the reasons for the sharp increase in the number of these pests, the bioecological characteristics of the pests, the distribution area, the level of harmfulness and measures to combat it have not been sufficiently studied.

In 2022-2023, in all districts of the city of Tashkent, in areas caring for ornamental pears and ornamental apple trees brought from abroad, as a result of monitoring studies conducted to study pests, cases of severe bark infestation were detected. Damaged and dried tree seedlings in the laboratory of the "Combating Pests of Landscape and Forest Trees" of the Research Institute of Quarantine and Plant Protection were recognized as pests when examined on sections. In order to study the bioecological characteristics and harmfulness of this pest, laboratory collections of larvae and adults were prepared in the laboratory.

Decorative apple tree bark beetle (Scolytus Rugulosus Muell.). Distributed in the North Caucasus (Stavropol, Maykop, Armavir) and in the Crimea, the Caucasus, Western Europe, Asia Minor and North America.

Description of development stages. After spawning, it lays eggs in small holes in the bark for 20 days. Usually the number of eggs laid does not exceed 30, but some females lay up to 100 eggs. After laying eggs, the female penetrates a hole in the bark and closes the mouth of the burrow to prevent other insects from entering, and dies there. The body of the larvae is white, the head is brown. The length of the adult larva reaches 2.5 mm. The larvae gnaw long paths between the bark and the pulp layer. The larvae pupate in early July; the pupation period is 10-15 days.

Pic.1. Pupa, adult and larvae of decorative apple tree bark beetle.

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At the end of July - beginning of August, the beetles appear and begin to infect other trees. These beetles also begin to lay eggs, and the hatched larvae, after a full meal, go to the sleep. The decorative apple tree bark beetle reproduces once, and in the Crimea - twice.

Pic.2. The damage of decorative apple tree bark beetle.

The bark beetle mainly damages trees weakened by cold or hot weather, with mechanically damaged bark.

Control measures:

Agrotechnical control measures: cutting off dead branches, bark and trees, preventing their reproduction, preventing spread, timely pruning of infected trees and branches, fertilizing trees, softening the base, irrigation etc.

Chemical control: during the summer of beetles, when mass reproduction of the pest is observed, it is advisable to use chemicals, such as El Toro, 25% s.c., Talstar, 10% e.c., Desis, 2.5% e.c., Imitrin, 20% em.c., Aktara, 25% s.d.g.

In conclusion, it should be noted that if work is not carried out in a timely and high-quality manner to combat the study of the bioecological characteristics of the decorative apple tree bark beetle, this can lead to the death of many ornamental trees.

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