



DAMAGE, BIOECOLOGY AND BIOLOGICAL MEASURES AGAINST CITRUS WHITEFLY

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Article history:	Abstract:
Received April 1 st 2021 Accepted: April 14 th 2021 Published: April 30 th 2021	In recent years, citrus greenhouses have expanded. Citrus trees include lemons, oranges, tangerines, or grapefruit. Since these trees require a subtropical climate, they grow on half of our land and greenhouses. Since citrus fruits contain micelles necessary for the human body, the requirements for them are growing. However, in addition to certain difficulties in growing citrus trees, it also prevents them from being damaged by various pests in different parts of the year. Currently, citrus trees are damaged by succulent pests and lose 65-70% of the crop.

Keywords: Biology, morphology, damage control measures

INTRODUCTION.

In the process of growing vegetables and melons in the world, various pests, especially algae (Aleyrodidae), cause great damage to crops. In particular, it was found that 50-60% of the citrus crop is destroyed by whitewash. In this regard, it is important to identify biopests caused by agricultural pests, develop measures to prevent and control them.

Today, food security plays an important role in the sustainable development of agriculture in the world's leading countries, and special attention is paid to research on the bioecology of vegetable and melon pests and the use of biological agents in their quantity management. A special place is occupied by *Trialeurodes vaporariorum* West., a common pest that is a dangerous pest for all types of vegetable and melon crops, cotton mites (*Bemisia tabaci* Genn), citrus mites (*Dialeurodes citri* A.). Determining the species composition of their biological and ecological features and natural entomophagous in different agroecosystems allows to develop measures to combat them in the Republic. Accordingly, to prove the reproduction, development, ecological characteristics, biological potential of alfalfa species on the basis of their distribution in different populations and agrobiocenoses, to determine the impact of alfalfa species on the biological activity of vegetable and melon crops, to determine the biological efficiency of entomophagous species; and its implementation in practice is of great scientific and practical importance.

P.J.De Barro, Liu, S.S.L.M.Boykin, A.K. on foreign measures on the species and systematic analysis of whiteflies, A.K. Azab, M.M.Megahed, H.D. El Mirsawi et al. The work on the ecology of algae in the CIS countries can be seen in the research of SN Myartseva, GI Sukharuchenko, M.A. Kravchenko. Sh.T.Khodjaev, B.A.Sulaymonov, H.H.Kimsanboev, M.I.Rashidov, E.Sh.Toreniyazov, A.Yu.Kutlymurodov, A.K.Kadyrov, A.K.Akhatov conducted research work.

However, the above research can not provide complete information on the bioecology of different species of algae (Aleyrodidae), population diversity and the formation of host-entomophagous relationships in agrobiocenosis, systematic analysis of entomophagous species, reproduction and use of entomophagous. Therefore, conducting research focused on the above problems is of great scientific and practical importance.

RESEARCH RESULTS.

Conducted in the greenhouses of SUE "Center for Innovative Development and Consulting in Agriculture" under Tashkent State Agrarian University, Kibray district, Tashkent region. After the citrus plant leaves selected for the experiment were observed and the percentage of damage was determined, 4 citrus plant leaves were selected in each variant. *Enkarsia* against whiteflies in the citrus plant selected in the experiment was applied in ratios of 1:10, 1:15, and 1:20.

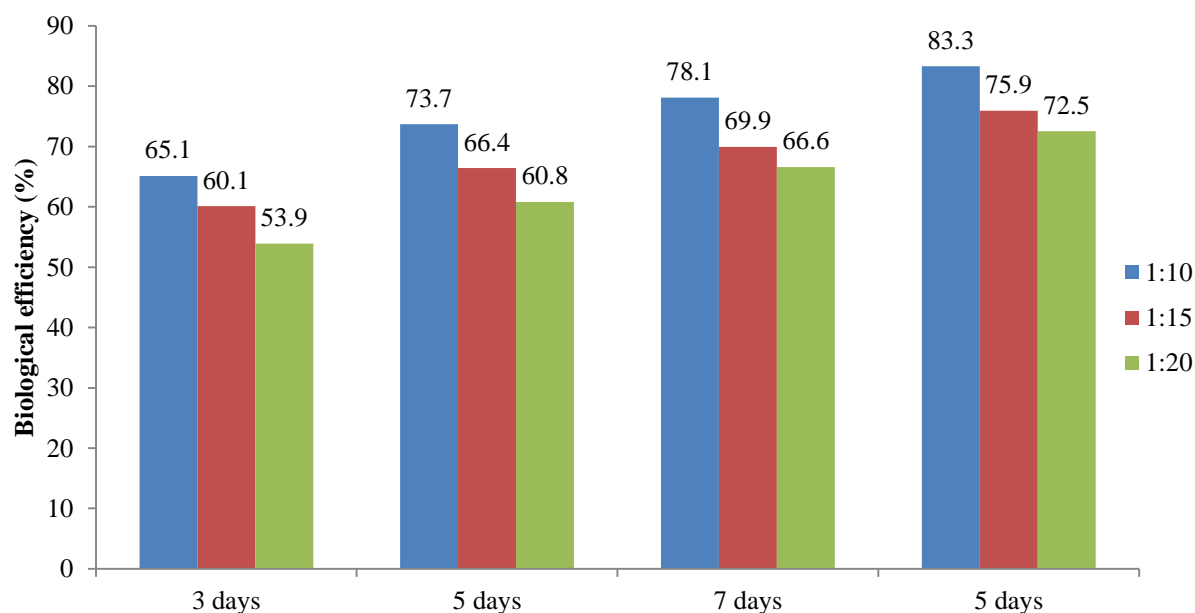


Figure 1. Biological effectiveness of encarcation against citrus whitewash (Field experience. Kibray district, Tashkent region, April 2020).

According to the study, the incarnation of citrus aphids before application was 11,2 units, followed by 65,1% at 1:10, 60,1% at 1:15 and 53,9% at 1:20. efficiency. 5 days had a bioavailability of 73,7% in a 1:10 ratio, 66,4% in a 1:15 ratio, and 60,8% in a 1:20 ratio. At 7 days, the biological efficiency was 78,1% at a ratio of 1:10, 69,9% at a ratio of 1:15 and 66,6% at a ratio of 1:20, while at 12 days it was 83,3% at a ratio of 1:10, 1:15 was 75,9% and the biological efficiency was 72,5% at a ratio of 1:20 (Figure 1).

When Encarsia was applied to 1-year-old citrus larvae in a ratio of 1:10, 1:15, and 1:20, by 12 days it was 83,3% at a ratio of 1:10, 75,9% at a ratio of 1:15, and 72,5 at a ratio of 1:20. % biological efficiency.

CONCLUSIONS AND SUGGESTIONS.

During the cultivation of citrus crops it was found that various pests, especially algae (Aleyrodidae) cause great damage to the crop and under the influence of algae 50-60% of the citrus crop is destroyed, encarcation against 1-year-old larvae of citrus plants 1:10, 1:15 and 1: When used in 20 ratios, 83,3% in 1:10 ratio, 75,9% in 1:15 ratio and 72,5% in 1:20 ratio were achieved in 12 days, and we recommend to increase this entomophagous in biolaboratories of the republic.

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