UDC: 633.35:595.7

THE USAGE OF LABORATORY POPULATION USCANA SENEX GRESE AND USING IT IN AGRICULTURAL CENOSES

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In this article findings about the usage of laboratory population Uscana senex Grese. (Trichogrammatidae) against Bruchus pisorum L. (Bruchidae) on the pea were described. It was shown the difference of biological indexes of laboratory entomophagous and natural population. The optimal biological effectiveness of outlet U. senex against pest in different correlation (Pest:Host P:H) was determined.

Pea, entomophage, phytophagous, biological effectiveness, passage

Today in regulating the number of harmful insect herbivores chemical method takes a leading role. However, progress chemical protection spawned a number of problems associated with the use of pesticides, such as metabolism remains hazardous substances are too dangerous in the chain of plant - animal - people. Successful resolution of these issues is possible with the use of biological methods (using microbiological agents, laboratory breeding and release entomophagous, preserving and promoting natural enemies of insects and pathogens). Benefits specialized entomophagous well known - focus on specific pests harmful to humans, animals and the useful entomofauna and, moreover, does not change the physiology of plants. With regular use biological agents in agrocenoses stabilized value herbivores and entomophagous.

The task of scientists and experts on biological plant protection is continuous monitoring of entomophagous to identify promising new species of beneficial insects [5].

Our attention has been focused on the study of bio-ecological features entomophage Uscana senex Grese.

Uskana is olihofahom and in eggs zernoyida pea, bean feeds on eggs, wikis, clover, and other espartsetovoho zernoyidiv. For the year to develop four generations, each of which lasts 14 - 16 days [6].

We found that the relocation entomophage on crops of peas it is concentrated in the inflorescence Phacelia, sainfoin and other nectariferous plants.If adults uskany flight coincides with the phase formation and flowering pea beans, the contamination of eggs in late June - early July can reach 65 - 85% [2]. After analyzing the domestic and foreign literature, we observed a number of advantages U. senex among entomophagous pea zernoyida, namely:

• infection into harmless pest stages - eggs;

• high biological efficiency, reaching 85%;

• the possibility of laboratory breeding eggs on alternative host - bean zernoyida (Acanthoscelides obtectus Say.) [4].

The purpose of research - the definition of breeding laboratory parameters entomophage Uscana senex Grese. and suitability for release in field conditions for protection against herbivores.

Materials and methods research. For detection and calculation Uscana senex Grese. and other small insects used technique MP Uncles, 1971 [2]. Since cutting entomological net ineffective, we used hidrofotoeklektor: one or two buds placed in Coarse bag, neatly tied around his glass, which put cotton wool soaked. When the sample (inflorescence) pidsyhala, insects moved into a glass. In vitro studies were conducted at the Department ahrobiotehnolohiy NUBiP Ukraine.

In the study of quality indicators parasite determined period of development (after infection before departure adults), actual and potential fecundity of females, adult lifetime, sex ratio and so on.

The biological activity of the parasite determined in field issues in areas 10x15 m in relationships parasite: host (P, X) 1: 5 and 1:10. The biological efficacy was determined by U. senex parazytovanymy eggs bruhusa and damage pea seeds. Plucky performed during a mass revival uskany (in the garden with a parasite put corrugated strip of filter paper (7h10 cm) to accommodate them insects, then carefully removed

with tweezers and tape laying between the main and lateral stems in the middle tier of pea plants.

Conclusions

1. The value of natural populations uskany significant only in the early stages of fruit formation peas and little effect on grain damage of peas during infection of eggs in the phase of wax and full ripeness.

2. In the mass breeding the parasite improved ratio P: X 1:15, and to obtain royal culture - the higher the ratio of P: X (1:30 and 1:45).

3. Passage through the main host eggs (Bruchus pisorum L.) improves performance uskakny laboratory and its mobility.

The biological effectiveness of the parasite in the field Single dose output and favorable weather conditions reaches 57.2% parazytovanyh pest eggs - a foundation for further development of new methods of cultivation uskany in the laboratory and study the rules and terms of issue of the parasite in the field.

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