

DETERMINATION OF COCCIDS IN FRUIT AND ORNAMENTAL TREES OF THE PLAIN, SUB-MOUNTAIN, MID-MOUNTAIN REGIONS OF THE FERGANA VALLEY

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In the conditions of the development of horticulture and vegetable growing in the regions of the Fergana Valley with the use of high technologies, the study of various groups of the plant and insect world and their adaptations that have appeared during their mutual historical development is the main guarantee of increasing productivity. For this reason, it is considered a requirement today to study the relationship between coccids belonging to the Homoptera order and plants, the effects of coccids on plants, and the effects of plants on coccids, as well as coccids that harm fruit plants. Also it is important to study their distribution, their biological-ecological characteristics. Based on the results obtained in the research, as a result of the interactions between plants and coccids, to determine the new morphological and physiological aspects that appeared in them; by studying the species composition of entomophages of coccids, their effectiveness in reducing the number of their hosts, there is a need to develop theoretical aspects of coordinated protective measures against coccids, pests of fruit plants (1, 2, 3).

Materials and methods: Researches were carried out in the plain, hilly, foothill, mid-mountain regions, cultural and natural landscapes of the Fergana Valley. 223 samples of coccids and 51 of their entomophages and predators were collected from different stages of development. The study of coccids and entomophages was carried out during individual and complex faunistic expeditions. When identifying coccids distributed in fruit and ornamental trees, the lower, middle and upper layers of the plant were examined, and it was determined at what stage of development the coccids are at the same time during the wintering period and in the fodder plant. Collection and storage of coccids was carried out based on the methodology of N.S. Borghsenius. Collection materials of coccidians were cut from 10-15 cm long branches of food plants in separate boxes, leaf samples were stored in herbarium (1,4,5).

Results and discussion: The study of the biological characteristics of coccids was systematically monitored at weekly intervals starting from the spring season. Observations were studied by determining the location, distribution, density of coccids in plant trunks, branches and branches, fruits and leaves, using bioimaging method (once a day) in selected model trees. In addition, when taking samples of coccids, it was tried to take the circular sides of the parts of the trees at the same height from the ground. During the experiments, the life processes of the density and number of coccids in modular trees, changes in their number over the seasons, laying of eggs, hatching of larvae, emergence of males were studied and summarized. In laboratory conditions, samples taken from branches of food plants in nature were placed in glasses of water, and life processes of coccids were monitored along with life processes in the branches. Based on the fact that the life of branches stored in water containers can last for one to two months, during these months there will be an opportunity to study the biological characteristics of coccids in branches. In the laboratory, under natural conditions, coccidian egg-laying was photographed and eggs laid were counted. The fecundity of the females located on the branch was determined as follows: after raising the shield of the coccids on the branch, the number of eggs laid under the shield was counted using magnifying glasses. Coccidian fertility was determined and processed under a stereoscopic binocular microscope in laboratory conditions, statistical and zoogeographical analysis was carried out.

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