N E W S
OF THE NATIONAL ACADEMY OF SCIENCES OF THE REPUBLIC OF KAZAKHSTAN
SERIES OF AGRICULTURAL SCIENCES
ISSN 2224-526X
Volume 1, Number 43 (2018), 26 – 33

UDC 595.753+631.5: 635.651MRNTI 68.35.31, 68.37.29, 34.33.19

I. I. Temreshev[1], A. V. Ageenko[2], I. N. Sagit[3]

[1]RSE "Institute of Zoology"of theCommittee of Science of MES RK, Almaty, Kazakhstan,
[2]LLP "Kazakh SRI of Plant Protection and Quarantine named after Zh. Zhiembayev"
of the Ministry of Agriculture of Republic of Kazakhstan, Almaty, Kazakhstan,
[3]Kazakh national agrarian university, Almaty, Kazakhstan.
E-mail: temreshev76@mail.ru, ageenko_viktor@inbox.ru, sagit_islambek@mail.ru

LEAFHOPPERS,TREEHOPPERSAND SPITTLEBUGS (*Hemiptera, Auchenorrhyncha*) – SOYBEAN PESTS IN THE SOUTH-EAST OF THE REPUBLIC OF KAZAKHSTAN

Abstract. The fauna of the leafhoppers, treehoppersand spittlebugs (Hemiptera, Auchenorrhyncha) damages soybean in the fields of fodder crops of «Bayserke Agro» LLP of Panfilov district and «Kaskelenskoe» LLP of the Karasai district of the Almaty region. In all 10 species and 8 genera from 3 families (Aphrophoridae, Cicadellidae and Membracidae) noted. The greatest number of species belongs to the family Cicadellidae - 8 species, to Membracidae and Aphrophoridae belongs to one species. The genus *Agallia* and the genus *Macrosteles*of the family Cicadellidaeare represented by 2 species each, all the other genus of all families include one species. All these species are polyphage pests of agriculture, damaging a variety of grains, legumes, fodder, technical, fruit and berry and technical crops. The most important of them are *Cicadellaviridis* Linnaeus, 1758, *Kyboascabipunctata* (Oshanin, 1871) from the family Cicadellidae, and *Stictocephalabisonia* Kopp &Yonke, 1977 from the family Membracidae. All of noted influence on soybean crops in large quantities, and are capable of causing serious economic damage by sucking the juices, and weakening the plants, and bringing the phytopathogenic infection through the lesions. The number of other species is very small, they can be of economic importance for the production of soybeans only in the event of an outbreak of mass reproduction. In the List of pesticides permitted for use in the territory of the Republic of Kazakhstan, against sucking pests, incl. leafhoppers, treehoppersand spittlebugs, only chemical agents are registered. At present, in connection with the global increase in demand for organic agricultural products, it is necessary to search for new ways to limit the number of pests. One of them may be artificial cultivation in the fields of fodder crops, incl. soybean stinging hymenoptera, some of which are entomophages of cicadas and other sucking pests.

Keywords: leafhoppers, treehoppers, spittlebugs, Hemiptera, Auchenorhyncha, fauna, pests, soybean, Almaty oblast, Kazakhstan.

Introduction. Leafhoppers, or treehoppers, or spittlebugs(Auchenorrhyncha) – suborder of insects from the order of thehomopterans (Hemiptera). More than 40,000 species are known in the world fauna. Insects are mainly of medium to small size, body length from 1.8 to 38 mm; the largest tropical species – lanthorn flies *Fulgoralaternaria*Linnaeus, 1758 reaches 95 mm in length and in the span of the wings up to 13 cm. Distributed worldwide. Feed on plant juices. Individual species are capable of producing sounds (singing cicadas Cicadidae) to attract a partner. The base of the 3-segmented proboscis is located at the posterior margin of the head near the base of the anterior pair of legs (hence the second name of the group - spittlebugs); proboscis folded down and back. Of the 6 pairs of strong legs, the front differs in wide hips, provided with spines; middle pair - short and also wide thighs. The posterior one in most species elongated,hopping. The shins of all pairs of legs are cylindrical. There are 2 pairs of wings, the upper pair is longer and stiffer. The coloring of the wings and the shape of the pattern on them depend on the species of the cicada. Larvae of cicadas, or nymphs, outwardly resemble little adults - their body length is 3-5 mm,